—THE—

Therapeutic Gazette.

Whole Series, Vol. VIII. | Detroit, January 15, 1884. | New Series, Vol. V. No. 1.

CONTENTS.

PAGE.

Original Department.

Jequirity—Abrus Precatorious. By C. W. Tangeman, M. D. 1
Corrosive Chloride of Mercury in Diphtheria. By F. C. Herr. M. D. 6
Cascara Amarga—Bark Honduras. By F. A. Thompson, Ph. C., ... 8
Jequirity in Mixed Trachoma. By E. P. Brewer, M. D., Ph. D 9
Salicylic Acid in Rheumatism. By C. Barlow, M. D 10
Cascara Sagrada in Internal Hemorrhoids. By John Elfers M. D. 11

Hospital Reports on New Remedies.

Convallaria Majalis. By W. S. Gottheil, M. D. 12

Reports on New Remedies from Private Practice.

Ustilago Maidis, Cascara Sagrada, Jamaica Dogwood, etc. By J. Hislop Johnson, M. D. 16
Jamaica Dogwood. By W. T. Thackeray, M. D 17
Chaulmoogra Oil in Eczema. By J. P. Marsh, M. D. B. F. Yohe, M. D 17
Euphorbia Pilulifera in Asthma. By C. C. Baker, M. D 17
Cascara Sagrada and Stigmata Maidis By D. P. Duncan, M. D 17
Rhus Aromatica in a case of Polyuria. By H. G. Keefer, M. D 18
Normal Liquid Ergot Hypodermically. By A. Moore, M. D 18
Corn Silk in Gonorrhœa. By Geo. A. Hetherington, M. D 18

PAGE.

Translations.

Jequirity 18
Cathartics Administered Subcutaneously 19
Salicylic Acid in Vaseline Pastes 19
Hydrastis Canadensis 20
Caffein Physiologically and Therapeutically 20
Quebracho and its Active Principles 20
Manaca 21
Pilocarpine in Singultus 21
Cactus Grandiflora in the Treatment of Subacute and Chronic Rheumatism 21
Omphalea Oleifera 21
Quebracho in the Treatment of Dyspnœa 21

Correspondence.

Vienna Letter 22
Letter from Mexico—Damiana, etc. 23
Philadelphia Letter 25
The Metric System 26
Remedies for Chillblains 26

Editorial.

The Therapeutic Gazette for 1884 27
Purity of Drinking Water 27
The Trials of the Experimental Therapeutist 30
The Use of Drugs Whose Properties are not fully known 31
Signatures Endorsing Nostrums 32
The Index Medicus 32

Editorial Abstracts.

The Preventive and Curative Treatment of Puerperal Fever 32
The Use of Bromide of Ethyl as a Precursor to the Administration of Ether 35

PAGE.

What Constitutes Alcoholic Excess? 35
Iron and Arsenic in Anæmia and Chlorosis 36
Jaborandi in Infantile Therapeutics .. 36
Beef Tea Too Thin 36
Subnitrate of Bismuth for Hyperidrosis 37
The Improvement of Pharmacy as a Branch of Medicine 37
Bromide of Sodium in Epilepsy 37
Phosphorus in the Treatment of Osteomalacia 38
The Treatment of Eczema of the Genitals, Pruritis and Leucorrhœa. 38

Book Reviews and Notices. 38

New Remedies.

On the Use of Peptones in Disease .. 41
The Use of Jequirity in Eye Disease. 43
Viburnum Opulus in the Treatment of Dysmenorrhœa and Abortion ... 44
Jequirity 45
Abrus Præcatorious, Jequirity 45
Sulamita Vitulus a New Antineuralgic 46
Abrus Precatorius and "Sui" Poisoning 46
Kairin 46
Adonis Vernalis as a Heart-Tonic and Diuretic 47
Cascara as an Aperient 47
Physiological Action of Adonis Vernalis 47
Cereus Bonplandii 47
Doundake Bark and Doundakine 48
Jequirity in Algeria 48
Helenol 48
Abrus Precatorius, or Jequirity Bean 48
Hypericum (St. John's Wort) for the Prevention and Cure of Bed-Sores. 48
Manaca in Gonorrhœal Rheumatism. 48
Adonidin 48

Original Department.

Jequirity—Abrus Precatorius.

By C. W. Tangeman, M. D.*

QUITE recently the renowned ophthalmologist, de Wecker, of Paris, introduced, or rather only brought to the notice of the profession, a drug from Brazil, by the name of jequirity. The seeds of the jequirity plant are what interests us most at the present time, though the root also is claimed to have medicinal virtues. In Europe these seeds have been known under the name of "pater noster erbsen," while their botanical name is said to be abrus precatorius, though there are quite a number of synonyms. The plant is a woody twiner and of a rather bushy growth, and belongs to the family papilionaceæ; it is indigenous to India, South America and tropical Africa. The root of the plant has been used by the inhabitants where it grows, about as the common licorice root is used in therapeutics, on account of the sugar that is in it. That is possibly where the French name "Sucre a veglisse" originated; it is sometimes, also, called Jamaica wild licorice. The seeds, of which there are two varieties, are of a bright coral red and a pale yellow; grow in pods about like peas; they have about the shape of an egg, though only about the size of a very small pea. The seeds have been largely used in the manufacture of ornaments, on account of the hardness of their shell or hull and their bright colors. The plant was known to the Egyptians centuries ago as abrus, but the seeds were not used in medicine—only for the manufacture of ornaments, such as necklaces.

The reason I say de Wecker only calls attention* to this new drug is because it has been

* Assistant to the Chair of Ophthalmology at the Ohio Medical College.

*Annal d'Oculistique, T. 88, 82, p. 24.

used by the inhabitants of Brazil and India, especially in the former country, where, in certain provinces, granulations rage as an endemic disease nearly all the time. De Castroe Silva (of Ceara), in 1867, published a small book on the use of jequirity in which he draws attention to the dangers connected with its use. He himself employed it in the proportion of 1 part in 700 parts of water. He reports a few cases where the use of two or three applications caused an intense inflammation of the eyelids, face and neck, and sometimes even affecting the submaxillary glands. He had under treatment a patient from Brazil for the cure of trachoma, who, after being discharged as cured, returned to his native country and there suffered a relapse of the same trouble, but this time employed the remedy used by the peasants, an infusion of jequirity seeds applied to the conjunctiva by means of a brush. The result was entirely satisfactory, and was at once communicated to de Wecker, who now began experimenting with it largely at his clinic. The infusion is prepared by bruising the seed to a fine powder and then adding the proper quantity of water to macerate for 24 hours.

This infusion applied to the conjunctiva possesses the peculiar property of exciting an inflammation that seems to be of a specific character. Sattler, of Erlangen, claims that it is an infection artificially produced by the infusion.* The disease has marked and well-defined stages of incubation, etc. The fact that products brought about by a chronic inflammatory process can be made to disappear in a very short time by exciting a florid inflammation, is not of recent date, which can be illustrated in many ways, but I will only call attention to the experiments of Jaeger about 70 years ago, who, to cure chronic trachoma, inoculated the conjunctiva with blennorrhœal virus, setting up virulent inflammation, being not at all unlike the cases where inoculation is accidental; it is a dangerous procedure, and all who have treated diseases of the eye have certainly had an opportunity of seeing these cases. The treatment of trachoma had been so unsatisfactory that this new theory found many ready listeners.

Peringer carried out this new theory quite extensively. Van Roosbroeck and Warlomont recommended it warmly in Belgium, and the results that they achieved were simply astonishing; but, notwithstanding, this plan of treatment fell into disuse, and not without a cause either, until at present its applicability is limited indeed. The cause for this is that the inflammation set up by the inoculated virus was so virulent that many eyes were lost as an effect of the treatment, since it could not be controlled, but had to be allowed to run its course. Abadies' suggestion to weaken the virulency of the blennorrhœal virus before applying it to the eye, thereby making it safer* and at the same time extending its range of application, could not be carried out practically, while it theoretically was an excellent suggestion. Certainly nobody at present will doubt that the efficiency of the specific virus is due to a micro-organism. Roosbroeck has made innumerable experiments with different agents with the hope of finding some one that would possess the good effect of the blenorrhœic virus, and still be absolutely safe to employ in cases where the cornea is still intact; but his researches have been fruitless as have been those of other experimenters. In jequirity we possess the desideratum; it acts on the same principle as the specific virus (as we will see later on) by exciting an acute purulent inflammation, virulent enough to cause absorption of the trachomatous bodies and at the same time it is absolutely safe to employ in all cases where the cornea is perfectly clear. This was a valuable discovery, and it is, therefore, not surprising to see the eagerness with which the profession accepted this new drug. In fact there was no hope entertained by anybody that we would be enabled to find suitable treatment for this class of cases; old plans of treatment had been again taken up that were discarded decades ago in the vain hope of finding some plan of treatment that would give better satisfaction. The reception of jequirity, by the medical world is something unprecedented in the history of the introduction of new drugs, all of which shows how unsatisfactory the use of the old remedies has been to both patient and physician; how long it will hold its own it is difficult to predict; it may be brought into disrepute before even its physiological action is properly understood.

The following is the formula for preparing the infusion according to de Wecker: Take 32 seeds (about 3.25 grammes), bruise them to a fine powder, add about 500 c. c. of distilled water; after allowing to macerate 24 hours add the same quantity of hot water, and after cooling filter, when the infusion is ready for use.

Dr. Moura, of Brazil, has tried various preparations of the jequirity upon rabbits, and thus ascertained the proportion and quantity which produces the most severe inflammation. I have gone through with the same experiments, at first I used the seeds and each one of its parts separately in fine powder, and subjected to maceration, sometimes more than 24 hours and occasionally the time was shorter.

The cotyledons, the embryonic radicle and the skin were used separately in the form of an infusion. The results differed very much, and the skin is of no assistance, but it appeared to me that the cotyledon and the embryonic radicle had best not be separated; better bruise the whole seed since the skin is not objectionable in the least. The infusion when first prepared is clear, has a somewhat greenish hue but after standing 36 to 48 hours it becomes turbid and has an odor peculiar to itself; even when standing for weeks it does not present the odor of decomposition that we almost invariably meet with in infusions of plants or seeds. In the course of 10 or 12 weeks it again clears up, leaving a slight deposit of a grayish matter at the bottom of the vessel.

Shortly after de Wecker's first publications appeared, Parke, Davis & Co. kindly furnished me with a package of jequirity seeds of both varieties, for physiological research. I prepared the infusion according to the formula as given above, and not understanding the action of the drug, I studied the effects on animals first. I wanted to assure myself as to the applicability of so active a remedy, to eyes where the cornea was in a perfectly normal condition. The first experiments were made on dogs, the infusion being applied with a small brush to the conjunctiva, the red variety in the right eye and the yellow variety in the left. The two infusions being

* Wiener Med. Wochenschrift, No. 17, 1883.

* Annal de Oculistique, 87, 1882, p. 227.

used side by side under exactly the same circumstances, enabled me to make an accurate comparison, but the results were about the same. I applied the infusion in the evening; by the next morning the conjunctiva was redened and a little congested; after that the applications were made 3 or 4 times daily. On the second the condition was about the same only a little more marked in degree. On the third day the inflammation was at its height. The discharge though copious was not purulent; there were flashes and little shreds of membrane but no purulency, since it is almost impossible to set up a purulent inflammation in a dog. The inflammation ran its course in about 12 or 14 days, despite the continuation of the application as from the beginning. It was always at its height on the 3 or 4 days, and by the 12 or 14 days all symptoms of irritation had disappeared. Where a dog was the test animal the cornea was never affected, no matter how concentrated the solution or how frequently the applications were made; whenever rabbits were used the cornea not unfrequently presented all the symptoms of a participation in the inflammatory process; but it is an established fact that almost any irritant may bring about a purulent inflammation in a rabbit's eye when applied to the conjunctiva. The two varieties of seeds were used on rabbits, but there was no difference whatever in the effect These experiments were repeated until I felt pretty well assured that it would be a safe application to make in cases even where the cornea was not involved by the trachomatous process. The teaching on this subject always has been that to set up an inflammation sufficiently active to cause an absorption of the granulations would necessarily be dangerous to the cornea. From now on I made my observations on the human subject, and soon came to the conclusion that the infusion could not always be prepared according to the rules laid down by de Wecker, nor did it always produce the same effect; and this is undoubtedly the main reason why some observers make unsatisfactory reports. They simply work according to directions given, without making any allowance for peculiarities, or contra-indications. My intention was to set up a purulent inflammation. I had studied its effects on animals and felt safe in the undertaking. Whenever three applications daily were not sufficient in a given case to bring about the desired effect, I made as many as was necessary, sometimes applying it as often as once every day for four days. If a ½% or a 5% infusion was not active enough I made it more concentrated. If the good effects of this remedy are dependent on the inflammation that it sets up, then produce the inflammation by all means.

Not unfrequently a single treatment is sufficient to cause a violent ophthalmia; yet this is not the rule; therefore we cannot expect it in all cases.

Sattler thinks that by the number of applications the intensity of the re-action may be regulated and maintained at any degree,* but it is not proportional with the frequency of treatment.

Wecker and Moura of Brazil state: "The more concentrated the solution the more intense will be the conjunctivitis, which S. is inclined to disbelieve, according to the observations he has made. I think I can verify the conclusions of the former experiments, in fact lately when preparing an infusion, especially when it is for an old chronic case I simply make an extemporaneous infusion, the stronger the better the results appear to be. It seems that the condition of the conjunctival membrane should be our guide as to the kind of treatment, since the reaction is the more prompt the nearer the conjunctiva approaches the healthy condition. An infusion 8 to 10 weeks old is inert. The artificial ophthalmia is not entirely without pain, but only the more sensitive patients complain very much of pain or uneasiness. Let us briefly run through the symptomatology of a typical case of jequirity ophthalmia: After the first application to the mucous membrane which is best made by means of a brush, there are no objective symptoms whatever; in the course of 4 to 5 hours a slight injection is noticeable of the tarsal conjunctiva and an increased secretion of tears; still a few hours later, there is slight œdema of the entire conjunctiva, the watery secretion from the eye is more copious and is beginning to get a little viscid and contains small flakes; these flakes seem to organize into a membrane which becomes slightly adherent. The following morning the eye-lids are glued together, are somewhat swelled, hot and a little painful. If the lids are now forcibly pulled open there is a gush of hot fluid; the conjunctiva is more chemotic, and is covered with a grayish membrane, which may extend continuously over the entire conjunctiva. Sensitive patients begin to complain of pain now, there is restlessness, with inability to sleep. It is seldom that there is any fever present save a slight elevation of temperature in the evening. On the second day the lids have become so thickened than an eversion is impossible, and the infusion must be poured into the palpebral fissure. All of the symptoms already mentioned are magnified; the secretion is a little more purulent in character. On the third day the discharge has become more profuse, and is now of a decidedly purulent nature, the chemosis is extensive, the false membrane covering the mucous membrane is thicker and can be separated at the edges a little without causing any bleeding; the cornea is not affected, pain is a little more severe, and the patient feels best in a dark room. The fourth day brings with it an amelioration of all the symptoms, the lids are not so thick, chemosis is disappearing, the cornea if it was involved at all, shows slight signs of corneal defect in the lower half, but this is not constant.

By the sixth day the membrane has separated along the edges and gradually disappears entirely, except possibly in the cul de sac, where it is slower in separating. The mucous membrane is thickened and has a velvety appearance; the enlarged prominent papillæ seem to be flattened; corneal defects are generally healed by the eighth or ninth day; but there have been a few cases reported where ulceration of the cornea and dense opacities remained as a result of the artificial ophthalmia. It may require a few weeks until all the symptoms disappear entirely. As was said before this is the history of a typical case. It would be a difficult matter to say what effect certain treatment has, exactly, on a given case; that will depend to a great extent on the management of the case, and then still nearly every case will vary somewhat. Where the course is mild, swelling of the lid and the purulent discharge are seldom found present, the membrane is thinner, chemosis is not so well

* Wiener Med. Wochenschrift.

marked. In some cases it seems that we are not able to set up more than a marked hyperæmia. I found the secretion when purulent to possess the property of exciting an inflammation if inoculated on the mucous membrane of a healthy eye; but the inflammation does not seem to be so active as that produced by the infusion. The artificial inflammation subsides rapidly if the applications are suspended and the eye is treated with a sublimate solution, one part in 8,000, about three times a day. I have not found a single animal that is immune against the action of the infusion. If a strong solution is used in a rabbit, a single treatment not unfrequently causes such a severe chain of symptoms that the animal dies in a day or two; he is not so lively, the lids become thick, have a boggy feel, the edges are glued together, preventing the escape of the secretions, the hair covering the eye-lids and eye-lashes, drop out, he emaciates and dies. The common brown hare is the most sensitive, while the tame rabbit is the best for experimentation. The purulent secretion from a rabbit will set up an inflammation in a cat's conjunctiva and *vice versa*, so that it is not only auto-inoculable but also hetero-inoculable.

After having studied the effects of jequirity on the eyes of animals and on the human subject, I could see that the picture is entirely different from the inflammation that may be caused by the use of irritants, such as turpentine, croton oil, ammonia, etc. There is always more or less pain accompanying their application and then the course is also so much different that there cannot be any comparison between an inflammation caused by irritants and one caused by jequirity. The latter does not reach its height nor begin to decline until after the third or fourth day, while the reaction from any of the ordinary irritants begins to appear in the course of eight or ten hours. The membrane that is formed on the conjunctiva is much more marked in rabbits than I have ever seen it in human eyes.

At this point the question arises what causes the reaction so plainly seen on the conjunctiva after the use of jequirity, and in what manner can it cure granulations? Jequirity seeds are in many respects similar to other leguminous seeds, containing a small amount of albumen, fat, salts, sugar and starch. Rigaud and Dusart, chemists of Paris, succeeded in extracting an alkaloid from the seeds which they employed in the form of a solution to the conjunctiva, but there was not the least reaction. The same negative results were recorded by Sattler, who used an alkaloidal body prepared for him by Hilger. He came to the conclusion that the jequirity ophthalmia was due to a "pathogenetic micro-organism found in the infusion of the seeds." But in order to prove this assertion the following problems had to be worked out: 1. "The presence positively of the existence of a distinct micro-organism in the jequirity infusion, and also the presence of the same parasite in the conjunctiva artificial membrane and the secretions from the ophthalmia." 2. "The inefficiency of the liquid when the micro-organisms were not present in the fluid, by killing them or rendering them inactive." 3. "By the cultivation of these specific microbes in 'Rein culturen' (to the exclusion of all other bacteria)-through a number of generations, and the production of the specific inflammation by the cultivated products, when inoculated into the conjunctiva." I have investigated these problems thoroughly. In making an infusion according to the formula as given above we can find animal organisms or organic life long before the infusion is filtered or the warm water has been added. The best comparison that I can make so far as shape, number and size of the jequirity microbe is concerned, is with the vibrio of decomposition, as in urine or decomposing blood. In length they vary a great deal, varying all the way from 2 to 8 or 9 mm. in thickness they seem to be nearer alike, about 0.60 mm. The exact behavior of this micro-organism under the microscope differs very much from any microbe that I have ever studied. They cannot be seen thoroughly unless by the aid of the most complete microscopic arrangements. They look like rod-shaped bodies moving around. Sometimes they are seen in pairs and occasionally in a chain of fours. They group in little islands and are motionless until suddenly one of their number shoots rapidly across the field and disappears; some of them are performing rotatory moments with the axis at one end or in the center—then they lie motionless again for a short time, only to go through the same movement again or to pass rapidly from the field of vision while others take their place; the whole field is a scene of the greatest activity. About 48 hours after the infusion is made the fully developed bacilli are seen to be distinctly notched or contracted, the larger ones having about 3 or 4 divisions and when observing the process under the microscope there will be seen an occasional tearing loose of one of these divisions; they move away, at first slowly but before long we find them endowed with all the characteristic movements of the original bacillus before it commenced to give off spores. The age of this microbe seems to be about 48 hours when it begins to give off spores.

There seems to be some difference of opinion as to how soon after adding water to the bruised seed, organic life can be discovered. I have repeatedly made an infusion using hot water from the beginning, and found the microbe 5 minutes later, having the appearance of the sporule that was just given off; if the same specimen is watched for sometime a difference in size is noticeable in the course of 2 to 3 hours. This also must be accepted as proof that the micro-organism described and found in such immense numbers in the jequirity infusion is not an organism due to decomposition. Since vegetable infusions do not decompose in 5 minutes. The rapidity with which these rod-shaped bodies develop, is proportional to their length and thickness; the development depends largely on the temperature of the place where maceration is going on. When placed in a cold apartment or in an ice-chest there is a total arrest of development, but this same infusion put under proper surroundings still possesses the properties of the original infusion. When the infusion is very concentrated the bacilli are found in larger numbers; therefore the reason why a strong infusion is more active than a weak one. The resistance and tenacity of the jequirity bacillus is wonderful; they retain the properly of vegetating, if carefullly moistened again after drying for week; an infusion can be made and instead of employing distilled water, a solution of bichloride of mercury 1 part to 12,000 is used without materially effecting the properties of the bacilli; when the solution is made

stronger, they are crippled and in a solution 1 part in 8,000 animal life ceases, possibly as much on account of the precipitation of the albumen found in the seeds as the effect of the mercury direct on microbe. A temperature of 180° F. kept up for 5 minutes does not in the least affect this organism nor its germinating power. This degree of heat kept up for ten minutes does not destroy motion.

The positive presence of the the microbe has been shown in the infusion; now it remains for us to show its presence in the purulent secretion and the tissues on which it acts. This can be done by briefly giving the history of a case:

E. G., male, æt. 15, made application for the relief of acute trachoma. I applied an infusion of jequirity by means of a brush, repeated 4 times daily, continued for 3 days; then I sent the patient to my friend Dr. J. Krouse, a skilled microscopist, with the request to examine the infusion that had been employed, then the purulent secretion, and finally the artifical membrane found on the conjunctiva. Though the doctor did not understand the nature of the case, he found a peculiar rod-shaped microorganism that behaved very unlike anything he had ever seen, and that the same kind of bodies could be found in the infusion,secretion and in the membrane, thus proving absolutely the presence of the bacilli. The inefficiency of the fluid was tested by boiling an infusion for ½ hour or adding corrosive sublimate to render the bacilli inert, and then applying the fluid as before, but in not a single instance was there the slightest reaction—even in such animals as are very sensitive to their action. The cultivation of this bacillus through a series of generations freeing it absolutely from all impurities and then producing an artificial ophthalmic by inoculating the conjunctiva with the cultured material, is proof beyond any reasonable doubt that the pathogenetic properties belong to the micro-parasite. Sattler has carried this process of cultivation through 40 generation,and then produced the same reaction on the conjuctiva.* The injection subcutaneously of the infusion produces abscess but when the boiled infusion is used there is no effect whatever following the injection. Cornil and Berlioz have shown that only the infusion has any active properties and that when injected into the pleural and peritoneal cavities the animals usually die in 48 hours.

Section showed broncho-pneumonia spots in the lungs. Peyer's patches were involved in the intestines, and peculiar grayish "plaques" found in the liver that were made up of jequirity bacilli such as were seen under the microscope.† The question how does jequirity act still remains open for investigation. The trachomatous process is of a mycotic nature,‡ and by setting up an artificial inflammation with jequirity we rob the trachoma microparasite of all means of subsistence. The field is sterilized by the jequirity bacillus. The elevations and hypertrophied processes of the conjunctiva in granulations are caused by the trachoma parasite, which are absorbed by the artificial inflammation if it is carried to the proper height, and the granulations have disappeared when the influence has subisded. In occasional cases the application must be repeated a few times.

*Wiener Med. Wochenschrift, 1883.

† Journal de Therapeutique.

‡ Report Ophthal. Congress 1881, Heidelberg.

The results therapeutically of different investigations are far from being satisfactory. Parisotti and Galezowski make the statement that the artificial ophthalmia causes a swelling of the mucous membrane sufficient to hide the trachomatous bodies for the time-being,* which are the good results of some observers. Prof. Magni records good results in such cases where the granulations are not indurated,† where the process is acute. In this class of cases the result is sometimes astonishing. Adanyuk states that the new method will certainly bear further investigation.‡ The different results obtained with an infusion of jequirity certainly depend largely on the manner in which the infusion is prepared, how, and in what kind of cases it was used. It has a predilection for the mucous membrane wherever it is found, and the reaction is more marked on the physiological structure, than where it is changed as it is in the case of granulations, where in many instances there is scarcely any mucous membrane left to be acted upon: the older the case the less intense is the reaction.

My observation with this remedy made at Prof. Seely's eye and ear clinic is as follows:

1. Generally speaking and judging from the results usually obtained in the treatment of trachoma, my results were remarkably good and satisfactory.

2. In a large number of cases I was not able to produce a purulent inflammation at all but still obtained good results.

3. The strength of the infusion influences the amount of the reaction.

4. An artificial inflammation can be set up any number of times by the use of the infusion, which speaks against its being an infectious disease.

5. It acts on mucous membranes other than the conjunctiva.

6. It does not seem to be necessary to produce a purulent ophthalmia to bring about absorption of the trachomatous process.

7. An involvment of the cornea can always be prevented by a suspension of the applications and the use of a sublimate solution, 1 part in 8,000, two to three times a day.

8. The reaction is much more marked if a slight amount of irritation is made with a brush while applying it to the lids, so as to cause an abrasion of the epithelium.

9. I found that an infusion of common peas made in the same manner as the jequirity infusion contains a micro-parasite that behaves exactly like the bacillus of jequirity under the microscope; and clinically the action is even preferable in some cases on account of its being milder in action, but the same in effect.

10. I think we have a means of controlling a jequirity ophthalmia so that it will not involve the cornea, by the sublimate solution. Bacteria are the cause of the inflammation; they are found in the secretion as well as in the tissues and membranes. These micro-organisms are killed and rendered inactive by the solution; if a strong solution of sublimate is added why should it not possess the same effect and cut short the artificial ophthalmia, which is due to the same organism?

* Rec. d' ophthalmie Août 83.

† Revista Clinic de Bologna 8-'83.

‡ Tageblatt Gesammte Aerzte, 9-'83

I employed the jequirity infusion in a number of cases that complained of purulent inflammation of the middle ear; it set up an active inflammation and profuse purulent discharge. When the remedy was discontinued the purulent discharge ceased, leaving the case cured,as if it had run its own course; especially was the result satisfactory when the middle ear was filled with fungous growths; the active inflammation caused a rapid disappearance of the fungoid mass. In this connection jequirity may become very valuable.

(*To be continued.*)

Corrosive Chloride of Mercury in Diphtheria.

By F. C. Herr, M. D.,* Philadelphia, Pa.

DIPHTHERIA, like all severe and fatal diseases, has been subjected to a great variety of treatment. Perhaps at no time in its history has such a unanimity of opinion existed with reference to plans of treatment as at the present. The uniformity with which, at one time the heroic measures of depletion and rapid mercurialization were practiced, contrast strangely with the supporting and stimulating treatment of to-day. The era of Bretonneau, unlike ours, had unshaken faith in the mercuric management of this disease, but it had not the light of experience to guide it, and committed errors which we shun in the light of a larger and better knowledge. Bretonneau and his cotemporaries established facts from which subsequent observers deduced most important conclusions, though Dr. Samuel Bard had a faint perception of the truth as shown by this remark: "But, although I consider mercury as the basis of the cure (in diphtheria) especially in the beginning of the disease, I do not by any means intend to condemn or omit the use of proper alexipharmics and antiseptics." It is noticable that Dr. Bard emphasizes the period in the history of the disease in which mercury is available. This is a matter of paramount importance and will be discussed further on. In the progress of medical science we have learned to draw such a sharp line between sthenic and asthenic diseases that our therapeutic management is often—perhaps too often—suggested by this consideration alone. Diphtheria belongs to the asthenic type of diseases. It does not permit of depletory measures in any form; neither is the action of mercury defensible either in theory or practice. This is the judgment of the profession, and must not, except for good reasons, be set aside. It were useless to consider, as a plan of treatment, depletory measures, as, save perhaps in very rare instances, they are contraindicated in any disease of so pronounced an adynamic type as diphtheria. It is different, however, with the mercuric plan, for experience has abundantly shown that, with a due regard to time and dosage, one need not look in vain for beneficial results. Bretonneau's experience with the employment of mercury in the treatment of diphtheria had nothing in it encouraging to this line of practice. His second memoir abounds in testimony against the efficacy of this remedy, showing clearly that it is capable of vast mischief. But we must not forget that he gave it with an unsparing hand, produced rapid physiological action, and administered it without regard to time or condition. His testimony is, therefore, by no means conclusive upon the subject of the therapeutic potency of mercury in the management of diphtheria. Dr. West, notwithstanding the adverse experience of Bretonneau, in 1859, said calomel was useful "for counteracting the tendency to formation of false membrane, and preventing lung complications." Many physicians to-day could give a strong endorsement to this view of Dr. West. Dr. Charles D. F. Phillips says he has had only disappointing results with the action of calomel in respect to its influence over the production of false membrane, but his testimony is in favor of the red iodide and the cyanide of mercury in doses ranging from a 1-50 to 1-30 of a grain every two to four hours With these mercuric salts so administered he has had gratifying results in severe cases of diphtheritic exudation. Trousseau recommended the use of calomel by insufflation, but the effect was indecisive. Mackenzie protests against the induction of salivation, saying "this promotes rather than checks the spread of exudation." While Squire observes that "mercurials, if continued till their general effect upon the system is produced, are productive of much mischief." On the other hand Stillé remarks: "it appears urgent that the system should be brought under mercurial influence as speedily as possible," and like Albers he advises ¼ gr. calomel every hour, and a scruple of mercurial ointment to be rubbed at intervals into the thighs. Opinions are somewhat at variance with respect to the efficacy of this remedy in the treatment of diphtheria as shown by these references. The want of uniformity in experience arises from the want of exactness in respect to all the conditions under which the remedy is administered. It is unquestionable that mercury may do much injury in diphtheria, while it is equally true that it is *par excellence* the remedy for this disease. Not denying to the muriated tincture of iron, to hydrochloric acid, to sulphurous acid, or any other agent of value, its merit in controlling this disease, experience has led us to the conviction that neither one nor all is comparable in virtue to the corrosive chloride of mercury in the management of diphtheria. All things being equal, more cases of mild or malignant diphtheria can be cured with this remedy than with any other agent of the materia medica. If our improved knowledge and enlarged experience does not, in contrast with former times, enable us the better to cope with disease and save life where formerly death was inevitable, then, indeed, have we worked in vain. Under the ordinary methods of treatment to-day the death-rate of diphtheria, as compared with earlier times, is not materially reduced. The various plans of treatment, popular with the profession, offer about the same inducements for their adoption, and under each and all the mortality is pretty uniform. Every epidemic of this disease furnishes renewed evidence of our helplessness in its presence. When it invades the household, and the physician is summoned, a feeling akin to consternation takes possession, for it is well known that the issue is uncertain. But all this is changing, and the time is coming when this dreaded disease will yield to the march of scientific medicine. Already we may feel emboldened in our contests with this disease, for we may disarm its virulence by the timely administration of the corrosive chloride of mercury. The introduction of this remedy as a specific cure for diphtheria we owe to Dr. Linn, of Williamsport, Pa.* He brought it

*Physician to S. W. Hospital.

* Or Monongahela, Pa.

to the notice of the profession about three years ago, and claimed for it that almost every case of diphtheria, if seen within the first few hours of its history, might be cured by it. He administered it in large doses frequently repeated, and it seldom produced ptyalism. In children less than ten years of age he gave it in 1-12 and 1-16 gr. doses repeated every two to four hours. Under this management the false membrane melted away, and its recurrence did not take place, while a speedy and satisfactory cure generally resulted. Dr. Linn called the attention of some of his professional brethren to this new plan of treatment in diphtheria, and urgently advised that it should be given a fair trial. Dr. Thomas J. Dunott, of Harrisburg, Pa., a man whose general and professional attainments place him in the fore ranks of the profession, introduced it to the notice of the Harrisburg profession. He had previously learned from Dr. Linn himself the almost astonishing results achieved with this remedy in this disease. At the time that Dr. Dunott brought it to notice of the Harrisburg physicians, a severe epidemic of diphtheria was prevailing, so that ample opportunity was offered to test its efficiency. The doctor himself spoke from experience concerning its merit, and earnestly besought his professional associates to try this new plan of treatment. Added to his testimony was that of Dr. J. Z. Gerhard of the state insane asylum at Harrisburg, Pa., who had seen its wonderful action in several very marked cases of diphtheria, which occurred in the practice of Dr. E. H. Coover, who called Dr. Gerhard in consultation. In the order of their seizure death carried away victim after victim of this disease, when Dr. Coover, at a loss to know what to do, called Dr. Gerhard, and together they agreed that the corrosive chloride of mercury should be tried. It was tried, and the work of death was ended. These gentlemen were not willing converts to this new plan of management in diphtheria, but they could not ignore such overwhelming testimony. This experience awakened interest in the subject, and others (at first timid and doubtful), soon found themselves practicing that which without adequate reason they vehemently condemned. The writer was loth to give up old methods, (though they had not served him well), for this new one. It was regarded a therapeutic innovation rather than a therapeutic improvement. The test of experience, however, had not been applied, and this is the only criterion of a remedy's value. The epidemic continued, and any alternative seemed better than death. The corrosive sublimate was resorted to with some hope of success, but with little confidence. My first patient was a child 15 months old. The examination revealed extensive diphtheritic exudation, though the parents had not many hours before observed that the child was ill. It is needless to narrate the symptoms of the case; suffice it to say that in all respects it was typical. Treatment was commenced with 1-12 gr. corrosive chloride of mercury repeated every two hours for a period of eight hours, when the interval between doses was lengthened to four hours. Ten grains of bi-chloride were administered in all. The exudation rapidly disappeared, and did not recur, the mucous membrane remaining, save some redness, clean, almost normal. The patient made an uninterrupted recovery. Good food, with a moderate amount of stimulation and fresh air, were enjoined. No local treatment was practiced.

Case number two was a colored child two years of age. This was the second victim of the disease in this family, the first one of which died under a treatment approved by the best authorities, *i. e.* muriated tincture of iron and hydrochloric acid. The second one made a complete recovery under the bi-chloride treatment. The same dose was administered as in the preceding case. It is surprising what a dissolving influence this medicine has upon the false membrane of diphtheria. It is noticeable in rare instances that the exudation is not influenced by the remedy, ndeed, if influenced at all, rather promoted than checked. In the vast majority of cases, however, this influence is very decided in the direction of its removal, and it must not be assumed that where the spread of the exudation takes place simultaneously with the administration of this remedy that it is due to the latter fact. It would be as logical to conclude that the spread of exudation when the iron is administered, is due to the influence of the iron. In six cases of diphtheria treated by Dr. Charles D. F. Phillips without any internal medication, one died. The ages ranged from five to nine years. In a second series of six cases ranging in ages from two to seven years, in which the iodide of mercury was given in minute doses, recovery took place in all. In fifteen remaining cases 10 to 12 minims of the liquor ferri perchlor. was given every one or two hours, and three died. Recently in the South-Western section of this city a more or less fatal epidemic of diphtheria has been prevailing. Several cases have come to me for treatment, and all of them recovered under the bichloride plan. In four children whose ages range from eighteen months to three years, this remedy was given in 1-12 gr. doses every three hours for two consecutive days with most beneficial results. In one case slight symptoms of ptyalism supervened, but all made a good recovery. White crape hung from doors all around this family, but death did not enter here. The value of ferruginous preparations must not be underestimated; but are they not more servicable after the acute symptoms have passed away than before? I always begin their administration about the third or fourth day of the disease, and should think that a most important element in the proper management of diphtheria were neglected if this were not done. But as to the essential radical cure of the disease a sufficient experience with the more approved plans of treatment as well as with this new plan, warrants the adoption of the latter in preference to the former. The conditions of the administration of the corrosive sublimate are of vital importance to the success of the plan. The remedy must be administered early, before the diphtheritic poison has impaired the vital forces beyond restoration. It must be administered with a view to prompt and decided action. If ptyalism occurs it should be abandoned. I believe the author of this plan of treating diphtheria distinctly announced that if the effect for good was not almost immediate it might be abandoned as useless, This has been the experience of all who have faithfully tried the remedy. The first few doses should impress the disease. If the administration of mercury is deferred until the disease has made firm encroachments upon the system, there can be only one opinion with reference to its action, *i. e.* injurious.

In the second place the dose should be large. One-twelfth grain of corrosive chloride given at intervals of two or three hours, will be borne without untoward effects. I have only given this dose to small children, and, except in a single example, have never seen any indication of salivation. Of course such auxiliary treatment as always requires attention is properly enjoined.

The remedy must be discontinued as soon as its beneficial action is apparent, else the good wrought will be undone speedily.

I always administer the remedy now in Cascara Cordial.

721 South 22d St

Cascara Amarga—Bark Honduras.

By F. A. Thompson, Ph. C., Detroit, Michigan.

CASCARA Amarga, also known as Honduras Bark, is obtained from a tree indigenous to Mexico. A description of this tree I am unable to furnish.

Specimens of this bark have been submitted to Dr. Vasey of the Department of Agriculture at Washington, for examination, resulting in the opinion that it belonged to the genus Picramnia (from *picros*, bitter, and *thamnos*, shrub), which numbers no less than twenty species. Dr. Vasey having only two varieties in his possession he was unable to determine the exact variety. Picramnia is said by different botanists to belong to the natural order Anacardiaceæ.

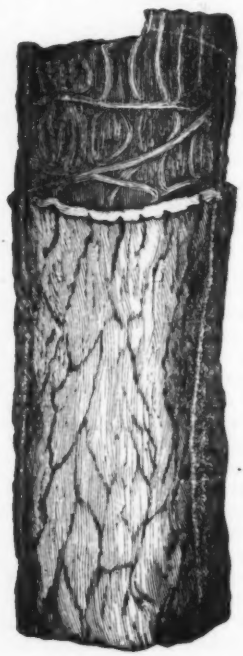

Fig. 1. Bark of Cascara Amarga, showing inner and outer barks. Natural Size.

The bark as seen in commerce, is mostly deprived of its outer bark which is from one to three millimeters thick, of a brownish-gray color, striated, and much divided by numerous longitudinal fissures. After being immersed in water, it assumes a greenish-yellow tint.

The inner bark is of a deep-brown color, three or four millimeters thick, hard, and firm, of a bitter taste, and on examination of a transverse section numerous white spots are to be seen, which appear to be filled with a white insoluble inert substance.

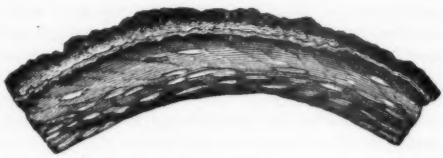

Fig. 2. Cross section of bark magnified 5 times natural size.

Microscopical Examination:—The outer or cork bark (*a*) is composed of twenty-five or thirty rows of regular thick-walled cells, filled with red coloring matter.

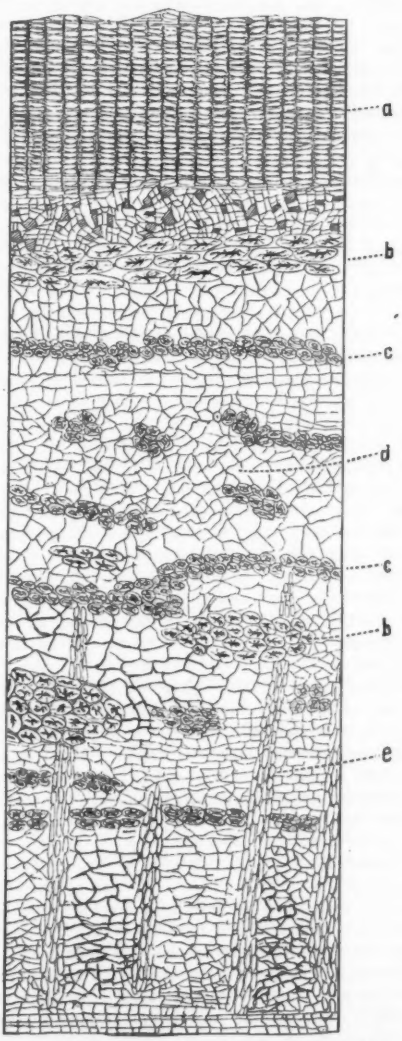

Fig. 3. Transverse Section. *a*, outer bark or cork; *b*, sclerenchyma cells; *c*, sclerenchymatous or bast fibres; *d*, parenchyma cells; *e*, medullary rays. x 75 diameters.

The middle bark is composed of large, irregular, parenchyma cells (*d*) making up the greater share of the whole bark. Throughout this portion of the bark are numerous sclerenchyma cells (*b*) arranged in groups and also one to three rows are always found close to the outer bark. These sclerenchyma cells make a prominent marking, as seen with naked eye, in cross-section fig. 2. Also at intervals, are one to three ranked series of sclerenchymatous fibers or bast-fibres (*c*) arranged tangentially, which turn brown after treatment with iodine.

The inner bark does not differ very much from the middle except it is divided by several rows of medullary rays (*e*) composed of regular cells.

Chemical Examination:—A portion of drug dried at 110° C until constant weight, was found to lose 10 per cent. as moisture. Another portion was incinerated, leaving a white ash amounting to 4.55 per cent.

Soluble in water: K, Na. sulphate, carbonate	1.10
" " dilute hydrochloric acid; Aluminum, iron, phosphates and carbonates	2.89
Insoluble in sodium hydrate; sand	.56
Total	4.55

Several portions of drug were treated with benzole, alcohol and water:

Amount extracted with benzole	2.72%
" " " alcohol (.889 at 60°)	10.00%
" " " cold water	4.16%

The benzole residue was dried at a low temperature, that at 110° C. removing volatile oils and traces of moisture. This residue was treated with several portions of warmed acidulated water, this solution giving reactions for an alkaloid, with tannic acid, Mayer's reagent and other test-reagents. Residue was treated with eighty per cent. alcohol (sp. gr. 848 at 60°) dissolving resins leaving a residue of fixed oils, resins and wax.

The following table gives the systematic course of analysis:

Benzine extract contains: Volatile oils driven off at 110° C	.50%
Soluble in acid water, reactions for alkaloids	.22
" " alcohol (.848), resins	.40
Insoluble in alcohol, wax, resins, etc	1.06
Total	2.72
Eighty per cent. alcohol extract contains:	
Extractive matter	12.65%
Inorganic ash	.4
Matter soluble in water	9.00
Ash " " "	.50
Matter scaringly soluble, amorphous	.55

The dried alcoholic extract treated with several portions of absolute alcohol (.7938 at 60°) evaporated to a dry extract contains:

Matter soluble in water, including		6.34%
Tannin, organic acids, some extractives precipitated with lead sub-acetate	1.66%	
Lead removed from solution with H_2S filtrate gave reactions for alkaloid with test reagents.	4.68%	
Insoluble in water		1.25%
Soluble in dilute ammonia hydrate, acid resins.	.41%	
Insoluble in ammonia hydrate, neutral resins	.84%	

Matter insoluble in absolute alcohol contains:

Soluble in water, including		3.55%
Colors, some extractives precipitated with lead sub-acetate	2.01%	
Matter not precipitated with lead sub-acetate, freed from lead with H_2S gave reaction for alkaloid and trace of glucoside	1.54%	
Matter insoluble in water; containing		1.31%
Soluble in acidulated water, reactions for alkaloids	.27%	
Insoluble in acid water, resins, extractives	1.04%	
Total extract		12.65%

Remaining drug was treated with cold water, yielding 4.16 per cent. extract; then with hot water containing sulphuric acid, changing starch into glucose, which was approximately estimated with a standard Fehling solution, showing 1.94 per cent. calculated as starch.

A portion of drug was treated by the U. S. P. process for cinchona assay. The alkaloid solution after neutralizing with sodium hydrate was shaken out with several portions of a mixture of chloroform and ether, and allowed to evaporate at a moderate temperature, yielding 3 per cent. of brownish-yellow amorphous alkaloid, which has a sweetish taste at first, afterward becoming bitter.

This alkaloid was treated with dilute sulphuric acid, hydrochloric, tartaric and others, but was unable to obtain crystals from any of the salts. Salts of this alkaloid are freely soluble in water, insoluble in ether or chloroform, are amorphous, forming a white powder when pulverized.

Treated with strong sulphuric or nitric acid was unable to notice any colored reactions.

Several pounds of drug were treated with lime water, dried and exhausted with hot alcohol, which on cooling deposited a white amorphous substance, which was treated several times with hot alcohol and allowed to separate out on cooling as a white, crystallizable, tasteless substance, having a low fusing point, freely soluble in chloroform, less soluble in ether and benzine. Insoluble in dilute acids and fixed alkalies, and when fused on platinum-foil develops a strong fat-like odor, reminding one of the odor of the fats when fused. A small portion allowed to crystallize from hot alcohol, deposited white, acicular-shaped crystals.

The alkaloid, obtained in different ways, I would suggest the name, Picramnine.

To ascertain the exact nature of this alkaloid remains for a future study which I hope I may be able to give to it.

The alkaloid seems to have the peculiar taste found in the bark on chewing a portion, and I think the virtue of the drug will be partly if not entirely represented by the alkaloid. Samples of Picramnine alkaloid are being submitted to the medical profession, hoping to receive soon some information as to its properties.

LABORATORY OF PARKE, DAVIS & CO., December, 1883.

Jequirity in Mixed Trachoma.

BY E. P. BREWER, M. D., PH. D., NORWICH, CONN.

SINCE my attention was called to the medicinal properties of jequirity bean by the article of Dr. Miles Standish, (Boston Medical and Surgical Journal, June, 1883), one case of trachoma has come to my charge that fully justified the use of this recent and imperfectly known drug. In reporting it I profess no new observations, but desire simply to swell the recorded clinical experience with results so happy that they seem to blend with the miraculous.

My patient, Nellie S., aged 22 years, has always enjoyed fine general health and vigor, the trachoma being her only important local or general digression from health. The duration of this trachoma is in-

definite, probably not less than six years. She has been under treatment for five (5) years, and states that for a year before this "the eyes felt badly and at times profusely watered." During the five years of treatment she has consulted the best talent of the east and passed muster in the regulation-treatment degrees—from blue-stone and acetic acid, to local depletion and canthoplasty.

When first seen by me the lids were considerably swollen and œdematous, the conjunctiva thickened and injected, and the cornea of the left eye clear, while that of the right was opaque and vascular—a true pannus crassus. Everting the lids, the mixed trachoma, of Stellwag, in its ordinary characters was noted.

Electing the right eye for treatment the following wholly relates to that organ. It must be remembered that in this eye existed the pannus crassus which had for some two years rendered it useless. At the time of my treatment only light and darkness could be distinguished.

I prepared my infusion by macerating for 24 hours one gram of the fine cut jequirity bean in one hundred (100) grams of hot water, and then filtering.

Submitting my patient to a dark room I commenced the applications at night, brushing both sides of the lids.

1st day. Three applications were made by dropping the infusion into the eye and brushing the lids externally. By night the lids were slightly swollen, of a light purple hue and felt heavy.

2d day. Three applications were made as yesterday. The palpebral œdema has decidedly increased. The conjunctiva is injected and œdematous near the caruncula lach.; there is some discharge. Photophobia is pronounced. At night the sleep was disturbed, and about midnight she experienced a slight chill.

3d day. Temperature 100°, pulse 90. Fine needle-like pains are occasionally felt, otherwise the sensations are as yesterday. The applications were made as usual. The upper lid is swollen out even with the supra-orbital arch of the os frontis, while the lower lid, though less inflamed, is puffed out beyond the malar prominence. The chemosis of the ocular conjunctiva is extensive and moderate in degree, being bathed with a profuse watery discharge in which float a few irregular, tenacious, deep yellow strings of mucus. The cornea is unaffected. At night the sleep was sound and refreshing.

4th day. The infusion is now discontinued after a total of ten applications. The disagreeable sensation of weight is much alleviated by frequent ablutions of tepid matter. The general condition is unchanged except perhaps slightly exaggerated. Temperature normal; pulse 72.

5th day. As yet no diphtheritic membrane has been seen; the nearest approach being the floating threads. The swelling is subsiding. The discharge is still profuse.

6th day. Marked diminution of both the inflammation and discharge, has characterized this day. The cornea is somewhat deeper in hue but devoid of excoriation.

8th day. The granulations are mostly absent, indeed the last twenty-four hours has perceptibly reduced their number. The palpebral conjunctiva is intensely red and thickened, reminding one of plush-velvet. The ocular conjunctiva is less vascular than before medication and generally normal in appearance.

10th day. The inflammation has practically disappeared and the discharge is daily subsiding. Photophobia of a mild intensity continues. The conjunctiva is much less injected and the pannus clearing away. All pain and scratching have vanished—the patient declaring she is in greater comfort than for five years. Testing the vision, in a crude way, I determined, to my surprise, her ability to count fingers at eight feet. Now with the protection of smoked glasses I moved the patient into open light.

30th day. Unfettered progress has marked the case since our last record. The discharge has entirely ceased except a scanty secretion in the morning. Abnormal symptoms have been wholly absent. The cornea is clearing rapidly, even its large capillary vessels are being obliterated. The distal vision in finger-counting has increased to nineteen feet.

40th day. The patient presents herself complaining of a scratching along the center of the upper lid. Everting it I found two meibomian glands obstructed and distended. These I evacuated by puncturing with a cataract knife, which immediately furnished relief.

67th day. Vision $\frac{10}{15}$. The cornea is still hazy, and one blood-vessel is visible in its substance. The discharge has entirely ceased. Some thickening of the lids remains, betraying the footprints of the vanquished trachoma. The palpebral conjunctiva is smooth and velvety in appearance, and daily losing the deep red hue; the ocular conjunctiva is normal in aspect yet on slight exposure shows some evanescent injection.

The diphtheritic membrane which some authorities assert as a concomitant to successful results was absent in this case, showing at least that this condition *may be* absent without special detriment. If an opinion drawn from a single experience were admissible I should be tempted to believe that the diphtheritic membrane is an index to the severity of the ophthalmia, rather than an element of special therapy.

So much time has elapsed since the treatment, that the hope of a permanent cure may (I think) be justly entertained.

Salicylic Acid in Rheumatism.

By C. Barlow, M. D., Eaton, Ill.

In acute and subacute rheumatism I believe we have no more potent remedy than salicylic acid. My first experience with led me to doubt its utility. I first administered it in a few cases in which I did not observe any beneficial results. In those cases I only gave five or six grains every three or four hours. I then increased the dose, and gave it at shorter intervals, and the result was more satisfactory. About this time the subject came up for discussion before our medical society, and Dr. S. D. Meserve remarked that he considered salicylic acid just as much a specific for acute and sub-acute rheumatism as quinine is for malaria. He stated that in order to obtain satisfactory results it should be given in sufficient doses, and at short enough intervals to bring the patient thoroughly under its influence. Then prolong the time between doses; but give enough to keep patient well under its influence until

recovery was complete. He advised it to be given in combination with acetate of potash as follows:

℞ Salicylic acid,
Acetate of potash, ℥ 3 ij
Water, ʒ jss.

M. S. Teaspoonful every two hours.

After a day or two he extended the time to three or four hours. In the above mixture there is ten grains to the dose. He stated that some patients would require fifteen grains every two hours at first. Now I have adopted this plan of treatment in quite a number of cases and have not been disappointed in a single instance. The last patient I treated for rheumatism was a small boy. All the joints were affected from the hips down; also his wrists. It was a severe case; and was under treatment only about one week. Recovery complete. There was marked improvement in this case in twenty-four hours after the first dose was given. I had an attack of rheumatism, myself, in right knee last spring, in which I tried the salicylic acid treatment. The inflamed joint was swollen and very painful. Temperature 103°, pulse 100. Took fifteen grains of the acid in solution with as much acetate of potash, every two hours during the first forty eight hours, in two or three ounces of sweetened water. There was some improvement at the end of twenty-four hours, and very marked relief in forty eight hours. I then lengthened the time between doses, to four hours. Continued to improve, and on the fourth day I visited a patient six miles from home, atmosphere damp, and raining part of the time while on the road. Was taken worse before reaching home and had to take morphine to relieve pain. Took the medicine two hours apart during the night and was much better next day when I took medicine four hours apart. Continued to improve, had a good night, and was much better next day until late in the evening, when I visited another patient, and was caught out in a heavy rain. I got wet and took another relapse that night; but two or three do ses of the medicine two hours apart were sufficient to relieve urgent symptoms, and after a day or two more I was able to ride again. I now attended to my practice regularly, but experienced one or two more slight relapses which were relieved by increasing the medicine as as before. This attack lasted about three weeks, and afforded a splendid opportunity to test the efficacy of the treatment employed. Each relapse was promptly checked by increasing the medicine, and I believe that if I had avoided exposure the recovery would have been complete in a week or ten days. The only disagreeable effect I noticed from the medicine was a *tinnitus aurium* very much like that produced by quinine.

Cascara Sagrada in Internal Hemorrhoids.

By John Elfers, M. D., Sugar Branch, Indiana.

IN my experience the medical treatment of internal hemorrhoids has been very unsatisfactory to my patients and myself. When a patient will submit to surgical treatment the chances for ultimate and complete recovery are much better. But a large number of those who have called on me to be treated for piles have not been willing to submit to an operation. When asked if there is any danger attending the various operations that have been practiced for the relief of these cases, in order to protect ourselves we have to tell them there is some risk. Then the idea of operating on a part of the body that to them seems very sensitive, makes many of them dread the operation so much that they will rather suffer for years than submit to be operated on. Again some females will not be operated on on account of the exposure incident to the operation.

The impaction of the rectum with hardened fæcal matter, thereby interfering with the venous circulation of the parts, being the primary cause in the great majority of cases, evidently the first object in the treatment should be to remove the cause. This I think can be best accomplished by using therapeutic agents that will soften or liquify the fæcal matter in the rectum without producing irritation, or reducing it to a minimum.

Some resort to cathartics to obtain partial temporary relief, but cathartics are irritating and are nearly always followed by constipation, so that we have a constant source of irritation by alternating constipation with active catharsis; only adding fuel to the flame.

During the past year I have used fld. ext. cascara sagrada in the treatment of this troublesome disease and have obtained far better results than from any other preparation I have ever used, especially in those cases where there is habitual constipation.

Before I began the use of cascara I used Oppolzer's pills, and sometimes with good results. Their composition is aloes, quinia, and ext. taraxacum where there is continual constipation. In cases complicated with intermittent diarrhœa substitute ferri sulphas for the aloes, as recommended by Fordyce Barker.

I give enough of the cascara sagrada in the beginning to produce several free evacuations, giving from 15 to 30 drops three times a day until the desired effect is obtained, after which give from 20 to 30 drops every evening at bed-time—enough to produce one or two evacuations the next day.

Henry M., aged 45, called on me May 10th, 1883. Farmer. Family history good. For several years past has been troubled with internal hemorrhoids. For the past year has been nearly incapacitated from doing any work, always suffering severely and at times losing considerable blood. He stated that at the time he did not dare to carry an ordinary wooden bucketful of water on account of the piles. He was troubled with constipation. I prescribed fl. ext. cascara sagrada, to begin with 20 drops three times a day until it produced several free evacuations and after that take from 20 to 30 drops every evening at bed-time, or just suficient to have a mild laxative effect the following day. After taking the medicine about two weeks he expressed himself as entirely relieved, and he has remained so to the present time, more than six months have elapsed since the beginning of the treatment, and now does any work incident to farm life.

I have obtained good results from all cases of internal piles complicated with constipation. Always be sure and get the genuine article. I have several times bought cascara of druggists that was spurious, and I think when we do not get good results it is because we get the counterfeit drug.

Hospital Reports on New Remedies.

From Charity Hospital, New York City.

Convallaria Majalis.

By W. S. Gottheil, M. D., New York.*

THE cases treated with convallaria majalis number 15 in all, divided as follows.

1. Cardiac valvular lesions, 9.

2. Cases of cardiac failures in acute articular rheumatism from hæmorrhages or phthisis, 5.

3. Case of Bright's disease, 1.

I would add that the preparation used by me was the fluid extract made by Parke, Davis & Co., who very generously supplied me with all that I required for my observations.

Constantine Zuchowsky, æt. 32, German, married, cabinet-maker. Admitted December 1, 1882. Patient has suffered from acute articular rheumatism for some 14 days, almost all the joints of the extremities being at times involved. At the present moment both knees and both ankles are affected, and his left elbow is beginning to become painful again. Temp. 102 4-5°, resp. 27, pulse 114. Ordered ol. gaulth., gtt. v, t. d.

Dec. 5. Pains have diminished in legs, but have increased in the elbows, both of which with the wrists, are now affected.

Dec. 6. Metacarpo-phalangeal joints of both hands markedly swollen. Ordered salicylic acid, grs. x, every two hours, and cotton dressings to joints.

Dec. 8. Various joints have been affected, the patient's temperature ranging from 100° to 103°. Ordered salicylic acid, grs. x, every hour.

Dec. 16. Temperature much diminished, 100° to 101°, resp. 28, pulse 114. Joints very much better. Pulse is quite feeble. A slight blowing sound is heard over the base of the heart with the first sound. Ordered moderate stimulation, and salicylic acid, grs. x, every 3 hours.

Dec. 22. General condition very much improved, joints are almost painless; appetite returning; temperature has been at about 100°, respiration 24, pulse 128.

Jan. 1, 1883. Patient has steadily improved. Rheumatism is nearly gone; temperature is almost normal, but pulse remains feeble and rapid.

Jan. 6. Temperature is now normal but the pulse remains feeble and quick; it is sometimes almost imperceptible at the wrist. A faint murmur is sometimes heard with the cardiac beat; there are no signs of pericardial effusion. Various measures, including digitalis in moderate doses, have been used, but the character of the cardiac impulse remains as before, and the number of beats have varied between 114 and 160.

Jan. 15. Pulse 130, temperature and respiration normal.

℞ Ext. conval. majalis, fl. gtt. v, t. d.

Jan. 16. Pulse 140.

Jan. 17. Pulse 156. Ordered convallaria, gtt. x, t. d.

Jan. 18. Pulse 140 and very feeble. Ordered conval., gtt. xv, t. d.

Jan. 19. Pulse 120 and somewhat stronger. Ordered conval., gtt. xxv, t. d.

Jan. 20. Pulse 102, undoubtedly better and stronger.

Jan. 22. Pulse 90, regular and full. Ordered convallaria, gtt. xxx, t. d.

Jan. 23. Pulse 78, good.

Jan. 25. Pulse 80, good. Continued treatment.

Jan. 26. Pulse 108 and slightly weaker. Ordered convallaria gtt. xl, t. d.

Jan 27. Pulse 80, fairly strong. Ordered conval. ʒ j, t. d.

Jan. 30. Pulse 120, regular and good. Continue treatment.

Feb. 1. Pulse 80. Discharged.

From about Jan. 7, patient's temperature had been perfectly normal.

James Smith, æt. 48, English, married, bricklayer. Admitted December 27, 1882. Patient has had phthisis for some time, besides the evidences of consolidation. A cavity is detected at the left apex. Has considerable chronic laryngitis and a most distressing cough. Soon after admission he had a very serious attack of hæmoptysis.

Jan. 15. Sputum very abundant, only slightly blood-stained. Pulse very slow (66) and so feeble as to be hardly perceptible at wrist. Temperature normal; respirations 30.

℞ Ext. convallariæ majalis, fl., gtt. x, t. d.

As a cardiac stimulant.

Jan. 17. Sputa abundant and purulent; no blood. Feels much stronger and is sitting up in bed. Pulse improving (80).

Jan. 19. Pulse 96, strong; undoubtedly much improved. Continue convallaria and also general treatment.

Jan. 22. Has had another hæmorrhage. Pulse 66 and very feeble.

Jan. 23. Pulse 72; almost imperceptible.

℞ Ext. convallariæ, fl., gtt. xx, t. d.

Jan. 24. Pulse 70; respiration 24; temperature 99°. Pulse very feeble indeed. Increased convallaria to gtt. xxxv, t. d.

Jan. 25. Patient has been delirious all night and this morning is so deaf that he only hears the loudest shouting. No fever.

Jan. 26. Patient gradually becoming rational.

Theresa Kerr, æt. 35, married, Irish, cook. Admitted December 19, 1882. Patient has been in the hospital several times; has been treated for syphilis and for cardiac disease. A year ago she left in fair general health. She enters again, anæmic and feeble, complaining much of palpitation and shortness of breath; has some cough. Examination of the lungs shows evidences of consolidation at the left apex. Examination of the heart shows the apex beat to be in the left nipple line, and 1½ inches below it; apex beat is somewhat diffuse and heaving; a very marked and rough presystolic murmur is heard at the apex, transmitted about two inches to the left, and not heard behind. A double murmur, with and following each sound, is heard at the base; not transmitted to the vessels of the neck. Patient complained considerably of pains in the head and limbs, aggravated at night. She was put on specific treatment for a time with marked effect on her osteoscopic pains. General treatment, combined with cardiac tonics, including digitalis, etc., did but little to relieve her of

*House Physician Second Medical Division Charity Hospital, New York.

the prærcordial pains, the palpitation, and the dyspnœa.

Jan. 17. Complains much of pain around the heart. Ordered kali iodid. gr. x and hydrarg. protoiod. gr. 1-5, t. d. Fl. ext. convallaria majalis gtt. x, t. d.

Jan. 18. Vomited several times to-day. Gums just beginning to get a little sore. All treatment stopped.

Jan. 20. Vomiting stopped. Cough very moderate. Has rather severe spells of dyspnœa. Pulse 108 and moderately strong.

℞ Ext. convallariæ majalis, fl., gtt. xv, t. d.

Jan. 22. Feels very bad; breathing labored and has considerable pain. Pulse 120 and quite small. Convallaria increased to gtt. xxx t. d.

Jan. 23. Pulse 113 and small.

Jan. 24. Pulse 108, slightly stronger; slightly nauseated. Ordered milk diet and lime water. Convallaria increased to gtt. l, t. d.

Jan. 27. Pulse 108, improving. Vomited considerably last night. Medicine stopped and cerii oxalat. gr. xx, t. d., ordered.

Jan. 29. Vomiting better. Pulse 104, small. Convallaria ordered in ʒ j doses, t. d.

Jan. 31. Dyspnœa unimproved. Convallaria increased to ʒ ij, t. d.

Feb. 1. Feeling nauseated again. Palpitation, dyspnœa and prærcordial pain entirely unimproved. Convallaria stopped.

General treatment was then resumed. The patient's condition, however, remained without material change. On February 5 she died suddenly when sitting up in bed.

Rose McGovern, æt. 36, single, Irish, domestic. Admitted August 7, 1882. Patient gives a history of recurrent attacks of rheumatism, the first one occurring eight years ago. She enters hospital complaining of chronic rheumatism, together with shortness of breath and palpitation. Examination shows a dilated heart and mitral direct and regurgitant aortic direct murmurs. Feet are slightly swollen. Urine negative. She was put on digitalis, caffein and general treatment for a time with fair results. The intermittent pulse gradually became more regular; the œdema and palpitation lessened. By January 17 she began to complain of fluttering and oppression around the heart. Pulse was 108, irregular, both in force and in frequency, every second, third or fourth beat being full and accentuated, the intermediate ones being very feeble. Digitalis, which she had been on for some time, was stopped.

℞ Ext. convallariæ majalis, fl. gtt. x, t. d.

Jan. 20. Pulse 66 and fuller, but as irregular as ever. Fluttering somewhat better. Convallaria increased to gtt. xx, t. d.

Jan. 24. Pulse 86 and fair. Feels much better; fluttering much less. Can rest well at night now. Convallaria further increased to gtt. xxv, t. d.

Jan. 27. Pulse still irregular. Feels well.

Feb. 10. Pulse 84 and good. Irregularity of beat unaffected.

Feb. 17. Little dyspnœa or palpitation. Convallaria stopped. Out on pass and did not return.

Patrick Egan, U. S., æt. 56, married, ironworker. Admitted January 3, 1882. Patient has suffered from cardiac trouble for some time. Examination shows insufficiency at the mitral and stenosis at the aortic orifice, with but slight compensatory hypertrophy. He coughs much, especially during the night, and the physical signs of emphysema and bronchitis are readily found. Feet are slightly swollen, and there is considerable headache. Urine negative. After various treatment he was on

Jan. 22. Ordered fluid extract convallaria majalis, gtt. v, t. d., and rest.

Jan. 29. Pulse 120, strong and full. Headache is no better. Swellings have gone down. Complains much of cough, especially at night. Increased convallaria to gtt. x, t. d., and gave also fluid extract lippia Mexicana gtt. xxx, t. d.

Feb. 1. Pulse 132. Head aches badly. Increased convallaria to gtt. xx, t. d.

Feb. 6. Pulse 96, much improved in tone. Complains a good deal of headache and lightness in the head. Cough unimproved. Convallaria and lippia stopped, and ordinary treatment resumed.

Hannah Berry, æt. 43, Irish, domestic. Admitted Jan. 8, 1883. Ten years ago patient had acute articular rheumatism, and has suffered from occasional rheumatic pains since. Two years ago she first noticed trouble with her heart, pains and palpitation on exertion occasionally. Has attacks of dizziness, and feet have swelled a little. Heart is found hypertrophied and probably dilated. A very loud mitral regurgitant murmur is present. Lungs show chronic bronchitis. Pulse about 84, irregular both in force and frequency; resp. 48; temp. normal.

℞ Ext. convallariæ majalis, fl. gtt. x, t. d.

Jan. 24. Pulse somewhere about 90, but so irregular as to be almost uncountable. Medicine has not done any good yet. Still suffers very much from her heart, and also from occasional attacks of cardiac asthma. Convallaria increased to gtt. xx, t. d.

Jan. 27. Pulse 105, irregular, palpitation, etc. Just as bad as ever. Convallaria stopped. Ordered tr. digital., gtt. v, t. d.

Jan. 31. Pulse 84, very irregular in force and frequency, tr. digitalis increased to gtt. x, t. d.

Feb. 10. Feels much easier, pain and distress relieved; pulse 96 and very irregular. Continue treatment.

Feb. 21. About the same. Pulse 90 and irregular. Tr. digitalis again increased to gtt. xv, t. d.

Feb. 25. Heart not quite so bad as it formerly was, palpitation and pain less. Digitalis stopped, and patient put upon:

℞ Ext. convallariæ majalis, fl. gtt. xx, t. d.

Pulse 84 and still very irregular.

Feb. 28. No result yet. Pulse 90 and less irregular, drops one in every 4 to 9 beats. Convallaria increased to gtt. xxx, t. d.

Mar. 2. Feels a little better. Pulse 75 and still irregular.

Mar. 3. Feels much improved.

Mar. 4. Heart rhythm is no better, though palpitation and pain are improved. Convallaria now given in doses, gtt. xl, t. d.

Mar. 5. Pulse 96, still irregular. Ordered convallaria, ʒ j, t. d.

Mar. 7. Pulse quite strong, 90, irregularity unimproved.

Mar. 10. Pulse 90, strong. Having gotten about all the possible good out of convallaria it was stopped and digitalis resumed, with about same result as before.

Charles Sheridan, æt. 42, U. S., printer. Admitted Jan. 8, 1883. Patient has suffered for 7 years past from shortness of breath and palpitation. No history of rheumatism, scarlet fever, etc. Had syphilis 9 years ago.

Examination showed lungs normal; heart considerably hypertrophied; marked mitral regurgitant and aortic direct murmur; also a less marked aortic regurgitant. Ordered rest and tonics.

Jan. 26. Condition improved; much dyspnœa and smothering when he lies down. Pulse 84, fair.

℞ Ext. convallariæ majalis, fl. gtt. xx, t. d.

Jan. 30. Pulse 78, regular and good. Dyspnœa and pains in chest about the same. Increased convallaria to gtt. xl, t. d.

Feb. 2. Medicine has done him but little good. Breathing very short yet. Convallaria increased to 3 j t. d. Pulse 84.

Feb. 6. Pulse 108, fuller and stronger than before. Præcordial pain is somewhat less, but there is no change in the dyspnœa and palpitation, which are especially severe when lying down.

Feb. 8. But slight result from the convallaria which was ordered stopped, and tr. digitalis, gtt. x, t. d., substituted.

Feb. 9. Less pain about heart. Feels better. Pulse 84 and good. Tr. digitalis increased to gtt. xx, t. d.

Feb. 13. Pulse 72. Moderate improvement in symptoms.

Feb. 16. Some smothering yet. Pulse 72, good. Digitalis increased to gtt. xxx, t. d.

Feb. 23. Stationary. Moderate amount of dyspnœa and palpitation. Digitalis reduced to gtt. xx, t. d.

Feb. 27. Pulse 78, very full, strong. Is a good deal better, but still complains of dyspnœa. Changed to:

℞ Ext. convallariæ majalis, fl. gtt. xv, t. d.

March 2. No marked improvement. Palpitation a little relieved. Increased convallaria to gtt. xxv, t. d.

Mar. 5. Less dyspnœa and palpitation than at any time since entrance. Convallaria again increased to gtt. xxxv, t. d.

Mar. 7. Improvement general and marked. His heart gives the man but little trouble. Transferred to help.

Henry Hopkins, æt. 38, Irish, clerk. Admitted Jan. 9, 1883. Patient is suffering from melancholia, of which he has had several previous attacks. All his functions were normal, and save for the marked despondency, he was in a good state of health. Pulse ranged from 96 to 108, and feeble. On Jan. 23 he was ordered fluid extract convallaria majalis, gtt. xv, t. d.

Jan. 25. Pulse 80, much fuller and stronger. Convallaria increased to gtt. xx, t. d.

Jan. 30. Pulse 90, and strong. Convallaria increased to gtt. xxx, t. d.

Feb. 2. Pulse 84, full and strong No effect perceptible. Convallaria stopped.

Charles E. Norton, æt. 65, U. S., bookkeeper. Admitted January 12, 1883. Has been a very hard drinker all his life; has known for some time past that he is suffering from Bright's disease. At the present moment suffers much from nausea and vomiting; feet œdematous; moderate dyspnœa; considerable cough. Examination shows presence of marked emphysema and bronchitis; no cardiac lesion. Urine contains albumen in moderate quantity and hyaline and granular casts.

Jan. 18. Average daily amount of urine has been 21 ounces. Elimination by the skin and bowels thoroughly tried with but slight result. Ordered moderate stimulation and opium.

Jan. 22. Patient's condition has grown steadily worse. Urine in 24 hours, 12 ounces.

Jan. 23. Pulse very rapid and irregular.

℞ Ext. convallariæ majalis, fl., gtt. xv, t. d.

Jan. 24. Pulse uncountable, almost imperceptible at the wrist. Urine in 24 hours, 14 ounces. Legs very painful from œdema; punctured and bandaged.

℞ Ext. convallariæ majalis, fl , gtt. xxx, t. d.

Heart beats 108; irregular.

Jan. 26. Somewhat easier. Urine 17 ounces in 24 hours. Pulse 100, still irregular. Convallaria stopped and sedatives, q. s., ordered.

Jan. 27. Died suddenly.

Alexander McMillen, æt. 23, single, Scotch, widower. Admitted January 12, 1883. Eighteen months ago patient had an attack of acute articular rheumatism, and has had since then at least two pretty severe subacute attacks. Does not know exactly when his heart first began to cause him trouble, but six months ago was in the Homœopathic Hospital for some time on that account. He enters complaining of palpitation of the heart—less troublesome, but still present, when lying in bed. Has had a slight cough for the past six months, and spits up small hard tenacious masses slightly streaked with blood. Examination shows a double valvular lesion, stenosis at the aortic, and insufficiency at the mitral orifice, with considerably cardiac hypertrophy. Pulse 80, fairly strong and regular.

℞ Ext. convallariæ majalis, fl., gtt. v. t. d.

Jan. 19. Considerable dyspnœa; feels weak and spits phlegm streaked with blood. Complains also of pain in the back and general languor. Pulse 72 and good.

℞ Ext. convallariæ majalis, fl., gtt. x, t. d.

Jan. 23. Condition same. Convallaria increased to gtt. 20, t. d.

Jan. 26. Pains considerably better. Feels sure the medicine is doing him good, although dyspnœa and palpitation are still severe, especially on the least exertion. Convallaria further increased to gtt. 30, t. d.

Jan. 30. Pulse 72 and regular: condition unchanged; continue treatment.

Feb. 2. Pulse 72. Not materially improved. Pains are a little better, but that is all. Dyspnœa and palpitation are unaffected.

Feb 6. Pulse 84 and somewhat stronger than usual; condition the same. Convallaria again increased to 3 j, t. d.

Feb. 8. Pains over heart undoubtedly better, but otherwise medicine does not seem to have affected him in any way. Pulse 72. Transferred to help.

John J. Doyle, æt. 31, U. S., hatter. Admitted Jan. 19, 1883.

Seven or eight years ago patient had acute articular rheumatism, and has suffered ever since, more or less, from palpitation and dyspnœa. At the present

time he suffers much from the above. Symptoms—cannot lay on his left side, etc. etc. Apex beat of heart very irregular in force and frequency. There is considerable hypertrophy of the right heart; impulse is heavy and rasping, ½ inch to left of nipple line, and one inch below it. A mitral direct murmur is very apparent at the apex. Pulse very rapid (120).

℞ Ext. convallariæ majalis, fl. gtt. x, t. d.

Jan. 29. Heart still irregular, but less so than on entrance. Pulse same.

℞ Ext. convallariæ majalis. fl. gtt. xv, t. d.

Feb. 1. Heart still very rapid (120) and irregular, but feels better, palpitation somewhat less.

℞ Ext. convallariæ majalis, fl. gtt. xxx.

Feb. 5. Pulse 78, but still quite irregular in force and frequency.

Feb. 8. Pulse 96. Much more comfortable; no dyspnœa, can go up and down stairs; palpitation very much improved.

Feb. 15. Convallaria stopped, and patient put on tonic treatment. He was discharged.

Feb. 22. Good general condition.

John Reilly, æt. 50, Irish, morocco-worker. Admitted Jan. 23, 1883.

Patient had been off on a prolonged spree at the beginning of the year, during which he received a large scalp wound, the remains of which are visible. He was treated for the wound and his alcoholism at Bellevue Hospital. He enters Hospital in a very weak and shaky condition, complaining of nothing but debility. Pulse 77, very feeble, almost imperceptible at the wrist. First sound of the heart hardly perceptible.

℞ Ext. convallariæ majalis, fl. gtt. xx, t. d.

Jan. 25. Pulse 72, same in character. Increased convallaria to gtt. xxx, t. d.

Jan. 26. Pulse 80 and slightly better. Convallaria increased again to gtt. xv.

Jan. 27. Pulse 60 and not improved to-day at all. convallaria given in 3 j doses t. d.

Jan. 30. Pulse 60, very feeble indeed. Convallaria was then stopped, and other treatment resorted to.

Patrick Hines, æt. 24, U. S., single. Admitted Feb. 20, 1883. Patient gives an indefinite history of slight rheumatism six months ago, but none of any acute attack. He enters complaining of a sharp and piercing pain in the side, which, he says, has troubled him for about 10 days. Has slight cough and some muco-purulent expectoration. There are also two unhealthy looking ulcers on his left leg, just above the ankle. Examination of the heart shows slight hypertrophy, and also aortic obstruction and mitral insufficiency. Ordered tonics, and iodoform packing and strapping for the ulcers.

Feb. 27. Ulcers healing. Pulse 90, and rather feeble. Complains of dyspnœa and palpitation.

℞ Ext. convallariæ majalis, fl. gtt x, t. d.

Feb. 28. Dyspnœa and palpitation as before. Pulse 84 and somewhat better. Convallaria increased to gtt. xx, t. d.

Mar. 2. Ulcers healing nicely. Breathing is better, and is steadily improving. There is also less palpitation. Pulse 96, and fairly strong. Convallaria again increased to gtt. xxx, t. d.

Mar. 3. Pains in side recommencing. Does not think that the medicine is doing him any good. Convallaria increased to gtt. xl, t. d.

Mar. 5. Cardiac pain troubles him yet. Has undoubtedly suffered less from palpitation since he is on convallaria. Pulse 90, small and hard. Convallaria now given in 3 j doses t. d.

Mar. 6. Better to-day, but little pain in the side. Pulse 84, much improved, fuller and stronger. Continue treatment.

Mar. 7. Pulse 90, strong. General condition good; no pains; feels well, and wants to go out.

Discharged.

Lizzie Hopkins, æt. 28., single, U. S., domestic, Admitted Feby. 21, 1883. Patient had suffered from occasional hæmorrhages from the lungs for some years; and had an attack of inflammation of the lungs after a hæmorrhage that occurred 4 years ago. Latterly had been suffering from the ordinary symptoms of phthisis, with occasional attacks of hæmoptyis. Family history of consumption well marked. Examination shows consolidation of the apices of both lungs; no cavities; pulse 96 and very small indeed.

Treatment: placed on ol. morrhuæ and iron and

℞ Ext. convallariæ majalis fl. gtt x, t. d.

Feb. 25. Pulse 118, and somewhat stronger. Convallaria increased to gtt. xv t. d.

Feb. 28. Condition rapidly improving. Pulse 96 and still very feeble, being almost imperceptible at the wrist. Convallaria increased to gtt. xxx. t. d.

March 3. Heart somewhat stronger. General condition very satisfactory. Pulse 102. Continued convallaria.

Mar. 10. No further improvements in the pulse. Patient discharged at request.

Justin McCarthy, æt. 52, English, single, laborer. Admitted Feb. 24 '83. Patient enters hospital complaining of pain in his left side, and of occasional attacks of dizziness occurring several times a day. Four or five years ago went through a well-marked attack of acute rheumatism, but does not connect his present troubles specially with that sickness. Examination of the lungs shows only slight bronchitis. Heart is moderately hypertrophied and a rather loud blowing murmur is heard at the apex following the first sound, and transmitted to the axilla. Pulse is 84; irregular in force, and occasionally intermittent and feeble.

℞ Ext. convallariæ majalis fl. gtt x. t. d.

Mar. 2. Pulse 66, and stronger, but still irregular.

Mar. 2. Dizziness better; pulse 60, of the same character but still irregular. Convallaria increased to gtt. x, t. d.

Mar. 6. Pulse 60, and good in character but still irregular. General condition, pain, dizziness, etc., much improved.

Mar. 8. Able to work. Discharged.

And now a brief resumé of results: Nine cases of organic heart disease.

1. No result on heart irregularity. 3 i t. d. No result on dilatation and hypertrophy.

2. Moderate result. No result on heart irregularity. gtt. t. d.

3. Good result. No result on pulse. 30 gtt. x. t. d.

4. Little result, save on pain. Hypertrophy. 3 j t. d.

5. Good results. Hypertrophy. ℥ j t. d.
6. Fair result. Hypertrophy. 20 gtt. t. d.
7. Fair result. Dilatation; no result on pulse. 25 gtt. ℵ t. d.
8. No result. Dilatation. ℥ ij t. d.
9. Good result. Hypertrophy. 35 gtt. t. d.
10. Bright's disease. No result.
11. Phthisis, hæmoptysis, cardiac failure. Moderate result.
12. Acute rheumatism. Cardiac failure. Excellent results.
13. Melancholia. Cardiac failure. Good results.
14. Acute alcoholism. No result.
15. Phthisis, hæmoptysis. Good results.

Reports on New Remedies.

From Private Practice.

Ustilago Maidis, Cascara Sagrada, Jamaica Dogwood, etc.

By J. Hislop Johnson, M. D. Edin., Dalkeith, Midlothian, Scotland.

Mrs. M'Q. Sept. 18, 12:30: Found her in bed. On examination found placenta protruding from os. Too much decomposed to be pulled away; the fœtus reckoned between two and three months. Came home and made up ustilago maidis, ℥ ij, aq. ad. ℥ j. Ordered ℥ ij to be given at once and ℥ j repeated every hour till the abortion was expelled, or I should see her again. Went back in the evening. All had come away with little pain, whereas previously the pain had been "worse than any labor pain." Expulsion took place about three hours after beginning the medicine, and there had been no hæmorrhage. The abortion was rotten.

Sept. 19. Patient splendid. Only took one dose of the medicine to-day. So well could scarcely persuade her to keep in bed.

Miss D. Sept. 21. Called at 2:30 A. M. Found that she had been in labor for some time, indeed about 12 hours, with her first child. She had much dropsy about her, all over feet and legs; also face very full Waited 3 hours and found very slow progress, pains being short and of "nibbling" character. Gave ℥ j ustilago. Pains a little better in about half an hour and lasted so about 15 minutes. Repeated the dose at end of an hour. Much better in about half an hour again, and about 15 minutes again found them beginning to wane. Gave the third ℥ j. This brought on splendid intermittent pains inside of 10 minutes, which expelled the child, whose head showed enormous moulding. Inside of another hour the placenta was expelled with very little hæmorrhage. The patient made a splendid recovery, but she complained of a very severe diurnal headache for the first three days, which went away when a dose of castor oil moved the bowels.

Mrs. S. Oct. 20. After keeping her in bed for about a week, owing to a feeling of a "dead weight" in the pelvis, intermittent pains and other symptoms foreshadowed abortion. She considered herself about third month pregnant, and digital and bimanual examination confirmed this opinion. The usual remedies had received fair trial before taking to bed and while in it, and nothing but failure. The woman was getting worn out by pains and fretting, and as I had seemingly fair reason for believing abortion certain in the long run, I gave her five drops every three hours of ustilago. Next day she was up when I called, and feeling "well but weak." Continued the medicine for a week three times daily. She gives now every appearance of standing out her full term of pregnancy.

Cascara Sagrada.—Mrs. D., over 90. Had always "been dreadfully constipated." Gave cas. sag. ℥ ss aq. ad. ℥ x. Dose ℥ ss *ter die*. A week after she thanked me with a "God bless you!" The effect had been marvelous. A month after she had had no cause to revert to the mixture of which she had still half left.

Cascara Cordial.—Used by my own wife. Taken in lemonade, while effervescing, first of a morning; is both palatable and most effectual, producing neither purgation nor discomfort, nor did it appear to effect the infant, which she was nursing, in the least. She won't allow me to give any of it away.

Cascara Sagrada Pills.—Used both by myself and a patient, and seemed quite inert in both cases. In the latter's case subsequent trial of the fluid extract was as effectual as in any other in which I have tried it.

Cascara Powder.—Simply put in a bottle with tinct. capsici and water. Gave as good results as the fluid ext. I look upon this medicine in either of the forms in which I have tried it, as the Irish woman did, viz.: As a perfect "God-send," for what is more tiresome to the doctor or more painful to the patient than obstinate constipation? And what a boon and blessing must be its wholesome antidote!

Jamaica Dogwood.—This acted splendidly in a case, a most distressing one, of cirrhotic Bright's disease as a soporific. Calm sleep for about five hours and semi-dosing for as much longer, from dose ♏ x every hour till about four had been given. No apparent ill effects followed, neither did it seem to lose its power from continuation.

My own child, when only three days old got three drops at bedtime with no appreciable effect save violent purging, pupils normal and active; cried much. Two nights of this; third night the dose was doubled and x drops chloric æther added. Sleep quiet and natural, but light, child being easily roused. Sleep lasted about six hours on an average. He had it for nearly two weeks in this way with little noticeable variation in the effects, and during this time the bowels became constipated. The little fellow was almost devoid of fat, but unusually muscular and strong, both weighing and measuring much above the average. He had the breast.

Quebracho.—I have given this drug in apparently suitable cases, three in number, in ℥ ss to ℥ j doses, but patients and I alike failed to recognize any benefit whatever from it.

Corn Silk.—This was given in a case of renal dropsy with irritable bladder aad greatly enlarged prostate. The dose was commenced at ℥ j every four hours. Much sickness and vomiting with great dryness of the tongue followed the third dose, which was then reduced to ℥ ss, but the above symptoms continuing the drug was stopped after a couple of days' trial. Meanwhile, however, the urine had become quite free from deposits and changed from an alkaline to a slightly acid reaction, and the noctur-

nal trouble with it had almost disappeared. The patient was a decidedly bad one—a fidgety old farmer much averse to anything of medicinal nature that did not flavor of whisky,—and managed to make his stomach reject the most simple and non-irritative remedies. So I still have great hopes of the corn-silk, and mean to put it to a further test.

Jamaica Dogwood.

By W. T. Thackeray, M. D., Davenport, Iowa.

ON the 2d of November, at DeKalb, Ill., I met with Gen. H. M. Day, of Cedar Rapids, and representing a boot and shoe house at Racine, Wis. The General, from exposure, had contracted a terrible neuralgia, which exhibited itself in the superior and inferior maxillary and inferior dental branches of the tri-facial, and the difficulty was aggravated, if not primarily caused, by carious teeth.

Gen. Day had consulted several physicians, but without relief, and being guests at the same hotel, he related his trouble to me. It occurred to me that this would be a proper case for Jamaica dogwood, and having a sample vial I suggested its use to my patient, who consented, and placed himself under my charge. I saturated a pledget of cotton-wool with the fl. extract and placed it along the affected side against the gums and teeth. I bathed the outside of the face over the course of the nerves with the extract and administered 10 gtt. in water internally. This was about 8 P. M. on the evening of the 3d. The General passed a comfortable night and was much relieved; suffered very little on Sunday; kept the cotton in the mouth wet with the extract; passed Sunday evening in pleasant conversation; repeated the dose internally at bedtime; slept soundly and on Monday was perfectly well, notwithstanding the fact that Monday was the most intensely rainy day that it has been my misfortune to see. I was with General Day for two days after this time, but he had no signs of a return of the trouble. To prevent a recurrence I advised that he have his teeth put in perfect order by a competent dentist.

Chaulmoogra Oil in Eczema.

By J. P. Marsh, M. D., Binghamton, N. Y.

MISS KENT, residence Cedar street, in this city, had been afflicted for some five years with pustular eczema. She had tried many physicians and taken many nostrums, but to no purpose. She came to my office August 13th for consultation, and after making a thorough examination and getting a history of the case, I resolved on trying chaulmoogra oil as a local remedy. I prescribed two ounces and advised her to apply it freely, twice a day. I also gave her ℞ Nitromuriatic acid, fluid extract cinchona, and fl. extract fringe tree, ää 20 drops, in a little water after meals. The eruption all disappeared in five weeks, leaving the face smooth and soft. There has since been no return of the difficulty. I regard chaulmoogra oil as valuable in eczema, given in combination with remedies that increase assimilation, etc.

By B. F. Yohe, M. D., Middlebranch, O.

ABOUT the 1st of September, a little boy, aged 6 years, was brought to me, who had had an eruption on both cheeks for five consecutive summers, disappearing, however, during the winter season. The eruption covered both cheeks, and was of a deep red color, with a few scarlet papules and pustules, some of which contained a small quantity of fluid. The patch was covered with a very thin film of dry exfoliating epidermis or scales, and at times, especially in warm weather, was attended with a degree of itching and burning. This patient had been treated at different times, by several of the best physicians of the neighborhood to no effect. I prescribed chaulmoogra oil ʒ j; 4 drops after each meal three times daily and an external application as often, washing the face each morning and evening with warm water and castile soap.

After using ʒ j nearly the whole of the eruption disappeared. I then ordered another ʒ j to be used in the same way, with the effect of removing all the eruption, leaving only some redness on right cheek. In large doses the oil is nauseating. It increases the appetite, and I have used it in dyspepsia with some good results, but have not used it sufficiently in that direction to determine whether it would be of much service in that affection.

Euphorbia Pilulifera in Asthma.

By C. C. Baker, M. D., Albuquerque, New Mexico.

THE following cases are reported rather with a view to supply evidence in support of the fact that euphorbia pilulifera is a drug worthy of a trial in asthma, than to permanently fix it as a remedy *par excellence* in this affection. The remedy is still too new to entitle it to this distinction, regardless of its merits.

Am now using euphorbia pilulifera on two cases: Mr. A., about 60 years old. The day I prescribed for him he said he was suffering more than he ever had with the asthma, although he had been afflicted with it for 15 years. The relief afforded by euphorbia was prompt. I have seen him once or twice since and relief continues although he is afraid it will prove to be only temporary as with all other remedies. His faith in drugs, it will be seen, is not strong.

Mrs. E., aged 40, has a complication of asthma and bronchitis of some 10 years' standing. She was promptly and materially benefited, but she has not used it long enough to know whether it will prove of lasting benefit. I have been prescribing it with simple syrup thus:

℞ Euphorbia pilul. ʒ j.
Syr. simp. ʒ ij.

M. S.—Teaspoonful four times a day.

Cascara Sagrada and Stigmata Maidis.

By D. P. Duncan, M. D., Waynesboro, Ga.

THERE is hardly a journal now-a-days in which something is not said in praise of cascara sagrada and stigmata maidis. And very justly bestowed is all the praise that I have seen in relation to

either. The former is without an equal in its action upon the entire alimentary tract.

While it acts as a gentle cathartic, it appears to add tone and to invigorate the entire digestive apparatus, thus eventually removing the necessity for its steady continuance, even restoring liver function.

In a large proportion of the cases of "heart disease" the physician is called to see, there is no lesion and the disturbance is sympathetic—the result of constipation and indigestion. Remove the disturbing factor and the disease disappears with great rapidity.

I answered an application for relief in just such conditions who had taken many compound cathartics pills, without the slightest relief. I placed him upon cascara sagrada, and in ten days he ceased taking it, avowing that its use for six days had broken up his chronic constipation, and when I saw him three weeks afterwards he told me he had not for this length of time touched it and that he was as regular as clock-work.

The corn silk has a favorable lenitive action upon the tissue, for irritation of which it is adapted, viz., the mucous lining of the bladder.

It would certainly be a pleasure to practice medicine if we were as positively assured of results with the long lists of drugs and medicines which make a casual reading of our Dispensatory one of labor as well as a loss of time.

Rhus Aromatica in a Case of Polyuria.

By H. G. Keefer, M. D., Honesdale, Pa.

MISS ——, æt. 28, August, 1883. Complained of passing a great deal of water, a large chamberfull every night, and thought she passed as much through the day. Ordered that she abstain from the use of such food as made sugar, and measure urine, bringing a sample to test. On her next visit she said she passed 5 quarts water in 24 hours. Sample showed sugar present by the copper and potassa test; spec. grav. 1.029. I gave rhus aromat. tinct. 30 drops four times a day, and the result has been most satisfactory. At present writing, December 15, 1883, Miss —— passes 2 quarts urine daily, with only trace of sugar, and is not obliged to get up more than once through the night, and sometimes not at all, to void urine.

I was led to use rhus aromatica from "Hale's New Remedies," and having a small bottle of P., D. & Co.'s fluid extract, I made a tincture of 3 parts dil. alcohol to 1 fluid extract (not a very clear tincture). The result of its use being so satisfactory I ordered through my druggist a pound bottle fluid extract, which I am now using.

I may at some future time have more to say of this patient.

Normal Liquid Ergot Hypodermically.

By A. Moore, M. D., LaPaz, Ind.

NORMAL liquid ergot (liquor ergotæ purificatus) has given such perfect satisfaction that I deem it a duty to make a note of its subcutaneous employment. Five minims is quite sufficient to produce strong uterine contractions. In case of miscarriage in which the fœtus had passed 14 hours, the placenta was still in utero and the os contracted so as not to admit my index finger, I gave 4 drops subcutaneously, and in ½ hour the placenta was expelled and hæmorrhage ceased. I have used this preparation of ergot in a number of cases and have always obtained good results. For my part as long as it gives me the same results as formerly I have no notion to use any other preparation.

Corn Silk in Gonorrhœa.

By Geo. A. Hetherington, M. D., St. John, N. B.

I HAVE used fl. ext. corn silk quite largely in my practice, and have found it very useful in the treatment of gonorrhœa, having treated two cases with it and nothing else. Both cases made a complete recovery inside of four weeks. I have also used it in combination with other remedies with beneficial results. In irritation of the bladder I have never been disappointed in it. The emollient and antiseptic properties of the drug peculiarly adapt it to this class of cases.

Translations.

[All articles signed "T" are translated for The Therapeutic Gazette by C. W. Tangeman, M. D., Cincinnati.

Jequirity.

Cornil and Bertioz have studied the action of the jequirity microbe on the blood of animals. The following is a short resumé of an article that was read before the Acad. des Sciences de Paris, Seance, Sept. 17, 1883. Their results verify the work of Sattler, where he says that the infusion only contains the active principle. A crystallizable substance has been prepared from the jequirity seeds, but it was found to be entirely inert. The filtrate of the infusion even was found to possess no active properties of any kind. Injections of the infusion into the peritoneal and pleural cavity caused the death of the animals in 36 to 48 hours. When section was made the patches of Peyer were found about in the same condition as we find them in typhoid fever patients. The lungs were congested and occasionally presented evidences of broncho-pneumonia. But the most interesting part of the study was the changes found in the liver. In this organ the changes were very peculiar, there were a number of opaque greyish looking spots, with "plaques," scattered around these little island-like spots. When examined under the microscope these were found to consist wholly of the rods and sporules of the jequirity microbe. In many instances the neighboring capillaries were completely filled up with these same formations. Injections practiced on frogs yielded almost the same results. When made into the dorsal lymph space or the peritoneum, jequirity microbes were found in the blood and in the serous cavities.—Par. MM. Cornil et Berlioz, in *Journal de Therapeutique.*

Parisoth and Galezowsky used an infusion of jequirity in three cases of trachoma. The reaction or rather the specific inflammation that usually follows the application of the infusion, was well marked in two cases only, but in all cases the results were alike namely, nil, at the expiration of six weeks. Authors' observations

have been imperfect and all who have used the drug can readily understand what is meant.

When making the first application the eye-lid on the conjunctival surface is rough, the trachomatous bodies are distinctly marked; in the course of a few hours symptoms of inflammation appear, the conjunctiva swells up and hides these bodies entirely, thereby apparently smoothing off the surface. In the course of six weeks or two months when the conjunctiva is in its normal condition again, the trachomatous body can be found to be intact, in fact the same as it was prior to the applications of jequirity.—*Rev. o'ophth., Août. '83.*

Prof. F. Magin in his investigations with jequirity employed a cold infusion of the hulled seed (2:100) macerated 24 hours. The applications were made like when a solution of nitrate of silver is applied to the conjunctiva. The number of patients treated was 60. All the different stages of trachoma from the acute to the chronic with its many complications were represented. The author's results were about as follows:

In cases where the conjunctiva is red and fleshy, but not much indurated, the result was sometimes astonishing. Especially is this the case where the cornea is very vascular. In cases of long standing with a great deal of cicatrization with vascular keratitis the inflammation that was set up by jequirity never amounted to more than an ordinary catarrhal inflammation. In cases ranging between the two classes mentioned the result was varying, in some instances but a slight inflammation could be excited and the benefit to the patient was proportional. According to the experiments of M. the secretion from a jequirity ophthalmia is not contagious be it ever so purulent, therefore he claimed it had not the power of affecting the cornea, but further observations will be necessary to positively establish these points.—*La Presse Medicale.* T.

Cathartics Administered Subcutaneously.

The author has verified and repeated a number of experiments that go to prove that cathartics can be administered subcutaneously and bring about catharsis. Lewin set up the claim some time ago that, judging from a theoretical basis, the possibility of such an effect must be admitted, and in all probability it is only a matter of time to find the most suitable substances. But while we are speaking of this latter point we may state that this is the question that has caused a delay in the introduction of a plan of treatment that certainly would become very favorable were it possible to carry it out properly in practice. In the experiments made by the author he has not been able to find a single drug that he can indorse as a remedy to use subcutaneously to produce an evacuation from the bowels. Aloin, a medicament used most frequently for experiments of the above nature, show a different action and effect, according to the method in which it is employed. Hiller has noticed that 0.15 to 0.2 grm. injected subcutaneously produces a large watery evacuation in the course of 4 to 6 hours. In the recently published experiments of Kohn, aloin injected in doses of 0.8 grm. did not produce catharsis. Colocynthin purum, manufactured by Merck, of Darmstadt, is a light grayish-yellow powder, which has a very bitter taste. If administered per os or subcutaneously in doses of 5—10 mgrm., it produces large watery stools with considerable griping. For the purpose of injections an alcoholic watery solution of glycerine was employed. These injections were very painful. A resinoid substance called citrullin, prepared by Merck from fructus colocynthis, acts somewhat similarly to the former drug. It is insoluble in water. When taken internally or injected under the skin, 0.005—0.01 grm. is a large enough dose to act quite briskly. The above-mentioned drugs, as also some few others, when injected into the rectum, dissolved in a small quantity of water, produce diarrhœa in one-half to one hour.

Experiments with acidum cathartinicum, e. senna, when given internally in doses of 0.2—0.3 grm., show cathartic effects. Employed subcutaneously it produces painful inflammation of the skin; but if the solution be given an alkaline reaction these eruptions do not appear, and 0.1 grm. in 8 to 12 hours produce large evacuations from the bowels. Elaterium extracts as well as pure elaterine are partially inefficient, and some are not applicable for other reasons.

Leptandrin, a glucoside insoluble in water, from leptandra Virginiana, caused an increased peristalsis when injected in doses of 0.5 grm. without causing diarrhœa. Euonymin, the glucoside of euonymus atropurpureus, is a mild laxative employed internally in doses of 0.1—0.2 grm. Baptisin, the glucoside of baptisia tinctoria, in doses of 0.3—0.4 grm., given internally, causes soft evacuations in the course of four to six hours.—N. Hiller, in *Ztschr. f. Klin. Med.*, IV., 40. T.

Salicylic Acid in Vaseline Pastes.

It is pretty generally known that salves and ointments, even in their fresh state, are not tolerated by a large proportion of cases. Every application seems to cause a new irritation, due to the fact that the base of the ointment, even vaseline, contains a free acid, or decomposition creates an acid which acts as an irritant. This condition of things may occur when the fats and oils are perfectly fresh, but is scarcely avoidable when they are rancid before they are used. If this could be avoided by the employment of vaseline (which is not the case since many samples of vaseline contain a free acid) it would not be very satisfactory on account of the consistency of vaseline. Lassar suggests that vaseline be mixed with equal parts of zinc oxide and starch—the mixture will keep perfectly, and is well adapted to the thorough incorporation of any medicament that it may be desired to use. The consistency is better, it does not melt at an ordinary temperature of the skin. On the contrary it has rather a tendency to dry and adhere to the surface wherever it is put. This paste never causes any irritation even in cases where ordinary unguents cause a reaction. It is porous and can be applied in weeping eczema or a surface that is bleeding, the moisture will come through the dressing but will not cause it to separate and drop off. In ordinary cases of eczema capitis that the general practitioner meets with so frequently, the addition of salicylic acid to vaseline forms an excellent application, but first the scalp must be thoroughly cleansed by a 2% solution of salicylic acid in any non-drying oil, then an application of the following ointment may be made:

℞ Acid salicylic 2.0 (ʒ ss).
Vaseline 50.0 (ʒ iss).
Zinc oxide
Amyli aa 25.0 (ʒ vj).

M. Leniter terend, fiat pasta.

The reason that this formula is so highly praised is because it sticks to the scalp, it does not melt so easily and if there are any moist places, the dressing is not removed by it. The application is light, odorless and cleanly compared with the tarry preparations. It should be removed once daily and then reapplied.—*Med. Chirurg. Centralblatt.* T.

Hydrastis Canadensis.

Prof. Schatz, of Rostock, i. M., Germany, is of the opinion that the medical treatment of diseases of the female sexual organs, is crowded into the background by individuals whose zeal for performing operations allows them to forget that in many instances they could more rapidly and satisfactorily treat the disease by local or internal medication, and obtain better results. S. thinks that in functional disturbances of the uterus and ovaries, anomalies of menstruation, direct or reflex nervous, or difficulties due to congestion, should always be treated in the manner above indicated, especially when the operative interference is dangerous or has a tendency to disfigure the patient. He calls attention to the fact that in the conditions mentioned a change in the mode of life, change of climate, psychical alterations, nerve tonics, etc., will often exert a change for the better.

Acting on these principles the author made some observations with hydrastis Canadensis in menstrual disturbances and makes the following report to the gynæcological section of the "Naturforscher Versammlung" in Freiburg: He employed a fluid extract obtained from Parke, Davis & Co., in 50 cases; of this number about 35 were pleasantly affected by the drug. It seems to have a special action on the mucous membranes, by stimulating and contracting the small vessels. In the female genitalia it even seems to have more of an effect than to relieve the congestion of the mucous membrane. A point that is worth observing, which presented itself quite frequently, was that the remedy was quite active and gave good results where ergot had no effect whatever. S. recorded favorable results, especially where metrorrhagia was due to myoma, in menorrhagia of young girls 15 to 18 years old, and in endometritis where the curette had been used. In many instances he commenced the use of the remedy one week before the appearance of the menses. In cases where menstruation was too frequent the periods appeared farther apart; in some cases were absent entirely for a time or two. In myoma the hemorrhages often disappeared for months. The dose of the fluid extract is 20 drops three times a day.—*Wiener Med. Blätter.* T.

Caffein Physiologically and Therapeutically.

The following is a short resumé of the author's investigations:

A.—IN PHYSIOLOGICAL DOSES.

1. Caffein excites the nervous and muscular system.
2. It diminishes the heart's action by lessening the blood pressure through vaso-motor constriction.
3. Peripheral or surface temperature is reduced.
4. It exercises no effect on the composition or secretion of urine.

B.—TOXIC DOSES.

1. Caffein acts on the excito-motor power of the spinal cord and paralyzes the peripheral sensory nerves; it lessens very much the excitability of the vagus.
2. It causes a rapid diminution of the blood pressure by paralyzing the vaso-motor nervous system.
3. The heart of cold-blooded animals acts slower and slower and ceases to act during a systole; in warm-blooded animals the heart action is increased just before death; ceases to act during the diastole.
4. It causes muscular tetanus.
5. The temperature diminishes rapidly.

C.—THERAPEUTIC APPLICATION.

1. Generally speaking it is tolerated a great deal better than digitalis, and if the administration is begun in small doses the cumulative effect of digitalis need not be feared.
2. It regulates and retards the heart action.
3. It causes slight diuresis.
4. It is not a surrogate of digitalis, but can be employed in all difficult cases, especially where its action should be rapid, since its action is much more prompt.
5. Caffein should be employed in fractional doses, internally or subcutaneously. The doses should never exceed 20 (3 grains) centigrammes to commence with, in order to test the patient's susceptibility to the drug; then the dose may be increased, if necessary, to 50 or 75 centigrammes.
6. It can be administered in all cases where digitalis is indicated and where the latter is not tolerated.
7. In albuminuria the result of the use of caffein is often remarkable.—Libboud, in *Deut. Med. Zeitung.* T.

Quebracho and its Active Principles.

At the Medical Clinic in Jena, Prof. Maragliano made some observations on the action of aspidospermin and quebrachin, both alkaloids of quebracho. These preparations have the property of reducing the number of respirations, but only when the disturbance or cause of the disturbance is functional; if there are organic changes causing the increased respiratory movements, then neither of the preparations are of any real value. After the use of these drugs the pulse beat sinks rapidly, in fact the healthy pulse can be brought down to 20 per min., while the blood pressure; as tested with Basch's apparatus, is not affected in any manner. The physiological action is marked: Administered by the mouth the effects commence in about 30 to 40 minutes; hypodermically in from 5 to ten minutes. The alcoholic extract may be given in 10 grm. doses using some pleasant vehicle. The doses of the alkaloids range from 5 to 25 centigram per day. Large doses may cause vomiting. In a solution of 5 centigram to 1 grm. of water it may be injected hypodermically without causing any local affection whatever. In asthmatic attacks the subcutaneous use, is the more preferable. Cotoin and paracotoin wherever used gave negative results. Kairin gave the same results that have been ascribed to it by all observers. Pilocarpine was also investigated by M. and should be used with great caution, especially in diphtheria where the heart power is very much weakened.—*Medicinal Zeitung.* T.

Manaca.

Manaca or vegetable mercury, franciscea uniflora, belongs to the family scrofulariaceæ. The shrub is indigenous to Brazil and Central America; its leaves are oblong, the branches have solitary terminate flowers which have a strong penetrating odor. The wood has a bitter and nauseous taste. This plant is officinal in two Brazilian pharmacopœias and enjoys very active properties.

In 1867 Dr. A. Eddmon, at Vaunos on the banks of the river Amazon, wrote that its propties were diaphoretic, diuretic and antisyphilitic. At Para the flowers are employed externally as an application to indolent ulcers. It has above all other remedies a marked effect in rheumatic affections. I grant that in the Amazon provinces it is not used as a medicament to any great extent. In those parts of America where the forests are so thick that the sun's rays never penetrate, where everything is damp, rheumatism in the chronic form is very prevalent and manaca is regarded as the sole remedy for its relief. Two doses are generally sufficient to arrest the most severe attack. A decoction is made of a small piece of the root, the half of which is taken in the morning, and the remaining half at night before retiring. The effect is produced on absorption of the second dose. The patient himself complains of violent pains in the head and dorsal region, and the disease terminates a few hours later by crisis, when abundant perspiration which is followed by profound sleep generally leaves the individual in a more comfortable condition, for when he awakes the rheumatism has disappeared. Such is the resumé of the manifold observations that have been made: 1. That all parts of the plant are endowed with medicinal properties, but the root enjoys these properties in a more marked degree and is at the same time more certain. If the root is to be given it may be employed in the form of a powder in doses ranging from 30 to 60 centigrammes 3 or 4 times a day, or it may be given in the form of a decoction. 2. That manaca in small doses is an emeto-cathartic, diaphoretic and diuretic; in large doses it is an acrid poison; it possesses a marked action in syphilis, and is the most reliable remedy in rheumatic affections. The name vegetable mercury is given to this plant by the inhabitants of Para, for the reason of its frequent use in the affections of the liver and other maladies where mercury is indicated.—*From the French.* T.

Pilocarpine in Singultus.

Dr. Ruhdorfer reports a very obstinate case of singultus. The attack could be checked sometimes by the hypodermic injection of morphine for hours or at most for a few days, but always returned again. The ordinary remedies, such as chinin, belladonna, tr. castor, tr. valerian, chloroform and ether spray, emetics and purgatives had no effect whatever. The infusion of green coffee had no effect.

R. was summoned in great haste and found the patient supported by her patients; each shock was so powerful that the patient was virtually raised from the bed; the pulse was weak, the eyes protruded, there was dyspnœa and cyanosis. The neck seemed to be enlarged. Since all the known remedies had yielded no results R. concluded to try pilocarpine, which had been recommended for that purpose. The remedy was administered subcutaneously and the effect was almost instantaneous. The singultus ceased and had not returned at the time of writing, which was nearly three months after. The dose of pilocarpine muriaticum was 0.03 in 1.00 distilled water. T.

Cactus Grandiflora in the Treatment of Subacute and Chronic Rheumatism.

The authors of this article praise the action of the above drug very much in rheumatic joint affections, and the diseases of the heart that usually follow as sequela. Pain in these cases is usually very bitterly complained of, though after the administration of cactus this symptom soon subsides. Having had good results in joint affections the author made use of the same remedy in chronic muscular rheumatism, and his expectations were more than realized. If cactus grandiflora is administered in combination with a purgative, at least the first few times, it is far more efficient. The usual form of prescribing it is a fluid extract, in doses varying from 8 to 10 drops three times a day and oftener if the symptoms seem to indicate it. H. states that until now no known remedy has given such good results in his practice. In acute articular rheumatism cactus has the power to control the inflammation to a certain extent and at the same time prevent heart complications. The remedy is very efficient but the authors do not like to give any statistics yet until their experience has been a little more extensive.— Harvey and Bird in *Pharmaceut. Post.* T.

Omphalea Oleifera.

A number of years since Dr. Dorat, of San Salvador, Central America, sent Daniel Hanbury specimens of a tree that was said to yield an oil similar in action to castor, but the taste was much more pleasant. The specimen sent was recognized as belonging to the family or species of omphalea. Dorat writes the fruit is about the size of an ordinary pear, and contains three black beans, which, if they are pressed, yield a very fine oil of a good pleasant taste and has purgative properties. The seeds are covered with a firm epidermis and contain a soft, mushy-like substance, in which the oil is found. Botting Hunsley suggests that the tree be called omphalea oleifera.—*Anzeige Blatt des Oestreich. Verein.* T.

Quebracho in the Treatment of Dyspnœa.

M. has thoroughly studied the effects both clinically and physiologically, of quebracho and comes to the following conclusions: The main action of this drug depends on its power to reduce the frequency of respiration, and it also reduces the heart's action; just how it acts on the heart it is difficult to tell. It may act on the muscular fibre itself or through the intervention of the nervous system. In nervous dyspnœa this is the only remedy that has the power without the assistance of any other medicaments to control dyspnœa. Therefore it is a true anti-dyspnœic. Possibly quebracho may possess some influence on the acute inflammatory conditions of the lungs. Dyspnœa caused by abdominal affections have not been investigated by the author. Mariani, *Ibid.* T.

Correspondence.

Vienna Letter.

Having some leisure time it occurred to me that I might write a letter occasionally that would possibly be of interest to the readers of the THERAPEUTIC GAZETTE. I can well recall the interest with which I was in the habit of reading letters from Americans abroad, aroused by my desire to gain all the information possible as to the opportunities offered in the great cities of Europe. For years, too, we have been accustomed to look to men abroad for new devices and new operations, so that such reading matter was doubly interesting to the practitioner. But since I have been abroad I have learned a great many things that are really valuable to the medical student, generally speaking.

There is one question that I cannot refrain from speaking about and which every one necessarily must consider, viz., the expense of a course of study on the Continent. Not unfrequently do we hear the remark that "the outlay is too great for my limited means." Such individuals are laboring under a mistaken idea, because the total expense of a year's study here at Vienna, or Paris, need not necessarily be greater than the cost of the same advantages at New York or Philadelphia. The ability to thoroughly understand and speak German is an advantage that often saves many a mark. In one respect the Germans are not unlike the Yankee: they will take the advantage of a foreigner if possible. When first coming here I secured rooms with an old German lady in a private family, when I settled down to business. The many private and public clinics and hospitals are the main attractions, the immensity of the city, and its surrounding villages furnishing a supply of clinical material that is astonishing. Being engaged in the special study of surgery I will first speak of the famous Billroth and his clinic. I had often heard it said that Billroth will not operate on ordinary surgical cases; he has apparently lost all desire for doing things that anybody can do. He is a remarkable man, and his clinic is noted for affording the student more opportunities to witness capital operations than any other one in the city. During the summer I witnessed an operation in which he displayed his peculiar skill as a surgeon:

The patient, a lady, made application for the removal of a tumor situated in the upper portion of the umbilical region. The growth was about the size of an ordinary apple. Vomiting was about the only symptom complained of very much, and that occurred every time after taking food, though the vomited matter never contained blood; the rectal discharges were frequently very dark in color. The diagnosis was a cancerous growth involving the stomach and upper portion of the small bowel. It was decided to remove the tumor, and it was my good fortune to witness the operation. The patient was prepared for the operation by the administration of a cathartic, and the washing of the stomach a number of times with a solution of salicylic acid in water 1: 1000. The most stringent antiseptic principles were enforced, though no spray was used. The assistants, of which there is always a good supply, looked as clean as though they had been gotten up for that special occasion. Is it not strange that Listerism has fallen into disuse so soon? There are in fact few men here who carry out Lister's idea literally, though his principles of antisepsis have benefited surgery wonderfully. The patient was anæsthetized. The incision through the skin was about 15 ctm. in length, running horizontally across the adbomen, so as to pass just over the tumor. After the removal of the omentum the tumor could be distinctly seen attached to the pyloric extremity of the stomach, also involving the first division of the duodenum.

The lesser and greater omentum were ligated and removed by the cautery, in order to allow the operator a little more room. The growth was not bound down by adhesions, but could be moved freely in any direction, which was favorable to both patient and operator. The pyloric extremity of the stomach was divided by beginning the incisions at the lesser curvature. Great care had to be exercised to prevent any escape of the contents of the stomach. The next step was to divide the other extremity and then remove the resected portion of the alimentary canal to which the tumor was adherent. The two extremities were next brought together and united by about 20 sutures in the most careful manner, in order that primary healing could take place. The care and most scrupulous exactness with which apparently unimportant points were carried out, certainly contribute largeiy to the success of Billroth's operations; and these points can all be carried out by other surgeons when they once learn to appreciate their importance. During the operation the patient made a few attempts at vomiting. A few of the neighboring glands that were involved were also removed. There was but little bleeding, the vessels that had to be divided being carefully ligated; only once was there a spurting from a small artery. The whole operation occupied about an hour and a half. During the first and second days after the operation the patient had a few attacks of vomiting, which were promptly quieted by using the proper remedies. Aside from this there was not a single unpleasant symptom in the whole course of recovery; there was scarcely any reaction whatever.

The first eight days the patient received only sweet milk and a little bouillon; after that she received a little meat occasionally, such as digests easily. In the course of five weeks she was discharged as cured, returning home feeling perfectly well. Five months later, at the time of writing, the doctor received a message that the woman had fully recovered; that she could eat anything she desired without the slightest annoyance. This, of course, was a typical case in every respect, and I purposely delayed the report to see what the final result would be. The excised portion measured 10 ctm. at the greatest curvature. A microscopic examination showed it to be scirrhus. The results generally of this operation have been unfavorable, since the patients usually do not consent to operative interference until the neighboring glands and tissues have been involved to such an extent that the surgeon can gain only a short respite for the patient. The various complications and technical difficulties that some times present themselves on opening the abdominal cavity, in cases of this kind, can only be realized when meeting them face to face, and to overcome them, knowledge and skill are two indispensable pre-requisites.

Before I conclude I must give you the history of

an operation that I witnessed at Prof. Nothnagel's clinic. The operation is a comparatively new procedure in surgery, namely, the transfusion of a solution of chloride of sodium into the venous or arterial system, instead of blood from arm to arm, direct, or in a defibrinated state. It is of extreme interest since it promises such excellent results. It has been largely tested by physiologists who have come to the conclusion, by investigations on animals, that a brilliant future awaits this operation. There have been 12 or 15 cases reported, out of which number there have, I think, been 5 recoveries, 3 of which at least are authenticated cases,—one reported by Bischoff, one by Kochner, and the other by Szuman. As I have said, I saw this operation performed on a case belonging to Prof. Nothnagel. The indications were acute anæmia, due to the frequent and long continued hæmorrhages from an ulcer of the stomach which had perforated an artery. The patient, a man of about 33 years, was very anæmic, in fact he was so weak that collapse was imminent; his pulse was 122 per minute, very wiry and almost imperceptible. He was certainly too weak to undergo with safety an operation to check the hæmorrhage; therefore Dr. Victor Ritter v. Hocker, who represented Billroth, concluded to try to save the patient's life by an infusion of chloride of sodium (6.0 Cl. Na.; 1000 aqua dest, with 2 gtt. Na. HO. to neutralize it). In the largest number of cases recorded the transfusion was made into an artery, but in this instance the median basilic vein was selected and the injection made according to Schwarz.* The solution was heated to a temperature of 39° C. and put into a vessel, to the bottom of which a tube was inserted about 80 ctm. long with a canula at the free extremity. The vein was opened, the canula attached and the liquid flowed in very easily. About 1,000 cc. were introduced at one time, and a few minutes later 500 cc. more were used; altogether about 1,500 cc. of liquid entered the vein in about 15 minutes. A few moments after the commencement of the operation the patient's pulse became stronger and more regular, and fell to 84 per minute. When the incision to expose the vein was made the patient did not react, but subsequently he opened his eyes and occasionally answered when addressed. The improvement, however, did not last very long; about an hour after the transfusion violent attacks of emesis set in. The ejected mass was a dark reddish-brown liquid containing small clots of blood. I made inquiry later in the day as to the condition of the patient, and was informed that collapse had returned and 3½ hours after the operation the patient died, the direct cause of death being another hemorrhage. Dr. Paltauf who made the post mortem examination told me that when he examined the stomach he found that there had been a destruction of mucous structure about 3 inches from the pyloric extremity in the lesser curvature, nearly 5 ctm. broad and 8 ctm. long. Part of this showed recent destruction of tissue, and in the upper margin he found an opening about the size of a hemp-seed which opened into the arteria lienalis, accounting for the frequent hemorrhages and the patient's sudden death. You may, when you read this, say it had been better to let the disease kill the patient than the remedy. Not so, however, since there is no doubt, that if the recurrence of bleeding could have been prevented in this case the patient would probably have recovered despite the extreme hydræmia. The operation demonstrated this point to us: that in surgical and obstetrical cases where life is endangered simply from the great loss of blood, this procedure is indicated, and to let the patient die without giving him the benefit of a trial of an operation, that any physician can perform, is criminal negligence. This was the first operation of the kind undertaken here at Vienna, to my knowledge, therefore a great deal of interest was manifested in the case by the whole profession.

* Berliner Klinische Wochenshrift, No. 35, 1882.

Didactic lectures commenced at the University, Oct. 15, with 300 matriculates for the first year, a somewhat smaller number than was in attendance the year previous, the whole number in attendance here being about 1,700. The long prescribed course of study and the extremely difficult examinations do not seem to lessen the number of aspirants for the degree of M. D. Foreign students are coming in, in large numbers to avail themselves of the rare opportunities that some of the hospitals and clinics of the city offer. I have thought that surgeons of Europe sometimes go a little too far in taking risks on human lives, but they are in a sense compelled to do so. A man receives little or no recognition until he had done some original work, made some diffcult operation or devised some new instrument. To illustrate this we need only mention Koch's name. What and where was he prior to his discoveries in microscopy, and where is he now? Formerly he lived in a little out-of-the-way place that was not any more known than himself, and to-day where is he? I wish you could see his laboratories with all their appliances and instruments of precision.

Occasionally we are reminded of America, for not infrequently some of the new American drugs are prescribed by the clinicians here, such as cascara sagrada, manaca, yerba santa, berberis aquifolium, hydrastis canadensis, and especially piscidia erythrina, which seems to be quite a favorite remedy with many of the physicians. When I write again I will tell you something of the gynæcological clinics.

Respectfully,

Vienna, Austria. S. S. STEARNS, M. D.

Letter from Mexico—Damiana, Etc.

Having paid a hasty visit to La Paz, and desirous of introducing myself to the readers of the GAZETTE, I now do so. La Paz is a small town at the extremity of a very large and extensive harbor on the eastern coast of the narrow strip of land known as "Lower California," and is situated on the Gulf of that name. The channel by which the city is approached is so narrow and tortuous that vessels of any size, are compelled to make an anchorage at Pichiluengo Bay, in a most perfect little harbor some 8 miles from the town. The country is of itself and surroundings an uninviting place, a mass of recent volcanic upheavals, of precipitous mountains covered with many varieties of the cactus, and here and there with small valleys like that of La Paz. In this as well as the other valleys, the soil seems very fertile, though not deep and is well drained. It it not yet fully developed owing to the inherent indolence of the natives and other inhabitants. The water found there is easily obtained from

shallow wells. It is not very good, of an inferior quality and highly impregnated with alkaline salts and mineral ingredients. It is to these and other foreign salts that the local and other physicians attribute the great number of cases of gravel and renal calculi always prevalent. On the other hand typhoid fever is almost an unknown disease, and a case of malarial disease one of extreme rarity. Such, however, cannot be said of that great scourge of mankind, phthisis pulmonalis. At La Paz it is very frequently met with, and in its course is very rapid to a fatal issue. The cause for this result may be said to be in the fact that the temperature during the winter months is quite low and the daily variation considerable.

The natives in their indolence, make no preparations for these changes in the way of clothing or increased bedding, nor do they make any arrangement for the warming of their dwellings. The highest thermometrical variation in one week past, 66° lowest, and 79° highest, though it is often much greater.

During 1876 and 1877 La Paz was visited with a most severe epidemic of "variola confluens," which resulted in the death of five hundred persons out of a total population of twenty-eight hundred or nearly one fifth. The epidemic though slightly malignant proved the value and efficacy due to inoculation, as foreigners who had been vaccinated escaped in every instance. One and the principal cause of the mortality, fearful as it was, may have been, and is attributed to neglected dietetics, want of medical care and good nursing, and sea bathing in the eruptive stage.

Although but a small place, La Paz seems to have sprung into one of some importance during the past few years, by the commerce with the United States in the native plant know as "damiana" or "turnera aphrodisiaca," which though indigenous to western Mexico, is unusually abundant on the peninsula of Lower California. Although frequently described, repetition may be useful. I found it to be a low shrub, which bears a small oblanceolate dentate leaf, which is the only part made use of in Mexico, although its medicinal properties undoubtedly reside in other portions of the plant, and seems to be embodied in an oleo-resin. The leaves have three sharp teeth on either side of the upper half, the lower half being entire, rather coriaceous, are rough on the surface, light green in color, with occasional black clots, and covered with minute resin-like granules or scales. When flowers are present, which is usually the case, they have an imbricated involucre, yellow florets, and a white hairy pappus. The drug has a heavy balsamic taste and odor. It is in universal use on the western coast of Mexico, usually in the form of a hot infusion, a cordial, or as a domestic tincture. (The leaf macerated in the native mescal, or pulque, which is itself a vinous acidulous beverage made from the agaœ or American aloe.) In its weaker forms is is esteemed as a general tonic, and sexual power preservative, while the stronger preparations are held to be, (and probably with some credit) powerfully stimulant to both the male and female sexual organs. It is undoubtedly an aphrodisiac of considerable power, somewhat tonic, slightly cathartic, and apparently having some hepatic action. The natives and midwives and women of loose morals attribute emmenagogue powers to it. Like at home, here abroad, the druggists have patented what they call "Damiana Fort," the same being an agreeable cordial, prepared from the herb. It is extensively sold on this coast, and as it may interest some of the medical fraternity to know what merits are claimed for "damiana," I append a free translation of a wrapper, it so perfectly represents the popular idea of the efficacy of

"DAMIANA FORT."

* * * * * * * * "Taken before meals it gives an appetite, and, prevents all indigestion if taken after meals. It exercises a wonderful influence over the nervous system, and is an *efficacious aphrodisiac*. The *frequent cases of longevity* observed in this territory, and the *power possessed by sexagenarians of obtaining offspring, as though they were still young, are due to the use of damiana.* * * * * By using this excellent liquor, the following results are obtained: *Re-establishment of the menstrual functions;* cessation of impotence and sterility; it is successful in all infirmities of the urinary organs and kidneys, and in fact, prolongs life. All these great benefits are obtained by frequently taking this liquor, according to the experience and testimony of respectable persons * * * *."

The italics are mine, and further your readers may judge for themselves.

The medical faculty of La Paz consists of two Mexican physicians, graduates of the college of Guadalajara, and one American. They all have excellent pharmacies connected with their practices. To any who may desire to reside and practice in Mexico, it may be well to state that physicians are not permited to practice in any portion of Mexico, without a certificate of proficiency from the medical examining board of either the College of Guadalajara or that of the City of Mexico, a law which renders the country singularly free from quacks. A small, feeble weekly is published here by the "Socieda de Medecina de Guadalajara."

A few days after leaving La Paz I visited Mazatlan, which is situated on the western coast of Mexico, on the gulf of lower California, in latitude 23° 11′ 45″ north, longitude, 106° 23′ 45″ west just under the shadow of the volcano of Mt. Colonia. It is the most important town on this coast and has about 12,000 inhabitants. It is a port of entry and receives a large number of imports, from the United States, via San Francisco and Engl., and via Panama, principally for the interior supply, and is the outlet for the rich mineral production of the mining districts of San Sebastian.

The town or city stands on the eastern side of the bay which forms its harbor, on a plateau of somewhat rolling and elevated ground, and has a sandy loam-natured soil. To the southward of the town, an arm of the sea extends somewhat into the interior, and to the northward of this estuary is an extensive low, marshy tract of land, cut up and intersected by numerous lagoons, lakes, and in many places covered with mangrove jungles. Mazatlan is thus bounded by extensive marshes on the north and east, which generate during the dry season, malarial poison and which when certain winds prevail, sweeps over the town, causing the various forms of malarial fevers so common there. The present epidemic of yellow fever may be indirectly traced to this cause

and it alone, as the town itself has a very general air of neatness and cleanliness. Its wide and scrupulously clean streets, kept so by municipal laws are a pride to a place where no system of sewerage exists. The houses are low and painted a light color, and are principally built in the old Castilian style of architecture, while those owned by the better classes are commodious and well ventilated. Mazatlan is well supplied with cistern water of an excellent quality. There are also numerous wells, rather shallow, dug in the alluvial soil near the sea beach which is not so good. It is simply filtered sea water, and at times contains a large amount of chloride of soduim.

Like all other tropical places, there are two seasons here. The wet, lasting from June to November and the dry the balance of the year. The highets temperature reached is 105° Fah., and the lowest 58°, yet the average annual range is but 17°. In the wet season the average daily range is 8°, in the dry 9.° The average rainfall, almost all of which fell during the wet season, is 130 inches, and the average humidity of the atmosphere 94 per cent. saturation, minimum 70 per cent., daily average 87 per cent. The daily average of barometrical pressure is 30.17 inches. The prevailing winds during the day in the dry season are from the northwest giving place to land breezes at night. South and South-West winds prevail during the wet season.

The medical faculty consists of two American and two Mexican medico's. To practice here the regulations heretofore mentioned, prevail; and in addition a thorough knowledge of French and Spanish is required. No health statistics can be procured as the Board of Health are non-professionals, who do not trouble themselves much with medical figures or facts. The climate seems healthy, and unlike La Paz is peculiarly well adapted for persons suffering from pulmonary troubles. The principal diseases are malarial and syphilitic. There is one disease of which I have not yet seen a case, commonly called "Mal de Puite" but which is probably pellagra or a variety thereof.

Leprosy and elephantiasis is common and widespread throughout Mexico, and is most abundant in the states of Mexico and Sonora. It occurs mostly in the tuberculosis and anæsthetic forms, though the macular is often found.

The town supports one hospital. The building is not as high as might be wished, though it can be spoken of favorably in other respects. It is built of stone, is one story high, and is divided into three wards. The main ward is 70 feet long by 20 feet wide, and contains 22 beds. The remaining two wards are 60 feet long by 20 feet wide, and each have 20 beds. The proportion of window space in each ward is as one to three of the wall space, and there are 80 ventilators in every ward. Each ventilator is three inches in diameter and placed near the floor and the ceiling. In the hospital building, proper, there are no water closets or lavatores. All patients take their meals in the ward. The medical staff consists of a visiting physician, an apothecary and nurses. Hospital reports like statistics were not to be obtained. The average number of inmates is 20, and the majority of diseases treated are malarial, syphilitic or surgical.

As to this port (Acapulco) which is situated in a fine harbor, secure from all winds, I will reserve mention until my next, as also the drug "Lippia Mexicana" used here freely.

REGNAR.

U. S. STEAMER "RANGER," off Acapulco, Mexico.

Philadelphia Letter.

A very interesting paper entitled on "What is Meant by Nervous Prostration?" was read before the County Medical Society, Wednesday evening, November 28th, by Professor Roberts Bartholow. One instructive point made in it was, that many cases of so-called nervous exhaustion had their origin rather in reflex action from peripheral irritation than from a cause originating anywhere in the nervous system itself. He referred to cases of this kind caused by disturbances of the digestive system, and of various derangements of other organs of the body. Dr. Chas. K. Mills opened the discussion on Dr. Bartholow's paper,, ably defending the doctrines of Beard, and others, with regard to the nervous origin of this disease. Dr. Bartholow did not dispute the central origin of the disease in some cases, but seemed to be of the opinion that a peripheral cause was often overlooked.

The Philadelphia Medical Club is becoming quite a feature in literary and social circles among Philadelphia medical men. It numbers now seventy-five, and is officered by Drs. C. R. Prall, president; Wm. M. Welch, M. D., vice-president; F. E. Stewart, secretary; Carl Seiler, treasurer. The object of the club is literary work and the encouragement of social relations among its members. In pursuit of this object a paper was read before the club at its meeting November 20th, by Dr. John Aulde, and then the meeting was adjourned to attend a reception given in its honor at the residence of Dr. John V. Shoemaker. As a number of the Camden, N. J., County Medical Society were present at the meeting of the club by special invitation, and as Dr. Shoemaker had kindly invited a few of the prominent physicians of the city to meet them at his house, the reception was exceedingly enjoyable, and withal quite a brilliant affair.

I had the valued privilege of a conversation with the venerable Professor Gross the other day. He is still hearty and as full of animation as ever, and still at work. I say still at work, although he has resigned his chair at the Jefferson Medical College, for he is now actively employed in promoting the cause of a higher education for nurses. His recent literature on the subject is too well known for comment here, and it is a pleasant thing to see a noble life work, as his has been, crowned with so much philanthropic endeavor.

We have another hard worker in the person of Dr. William B. Atkinson, who is always one of the foremost in the promotion of any enterprise for the benefit of the profession. He is at present at work on a new medical directory for the city of Philadelphia. This work is designed to give a condensed description of almost everything medical in the city and county; with a list of the public institutions of the city and the state of Pennsylvania. It will also contain a full list of the physicians practicing in the city, with their residences and office hours. Dr. Atkinson has been for some time the editor of such a work, but this revision, we are informed, is to be a

much more complete affair, will cover a greater field, but, owing to a new plan adopted in its compilation, will be no larger than previous editions, and will, I believe, cost less money to the subscriber.

Much interest has been excited by a paper read at the special request of the Alumni Association of the Philadelphia College of Pharmacy—at a meeting of that body recently held in the hall of the college—by Dr. F. E. Stewart, entitled, "The Relation of Pharmacy to Therapeutics." The lecturer held 1st, that pharmacy is dependent upon therapeutics, and the pharmacist upon the physician; 2d, that therapeutics is dependent upon pharmacy, and the physician upon the pharmacist; 3d, that the literature of therapeutics is dependent upon pharmacy; and 4th, that pharmacy is not a trade, but a liberal profession, like law, theology, and medicine, and the pharmaceutical profession are bound by the same obligations, and should be admitted to the same privileges, as is the medical profession. He argued that pharmacy is but a branch of the science of medicine; that pharmacy, therapeutics, and materia medica, should be classed together under the head of pharmacology, or the science of drugs, to which department belongs all the knowledge of drugs; and that the physician and pharmacist, both being interested in this science, the study of drugs should form the uniting bond between the two professions. Accepting that the interests of the two professions are mutual, in all matters pertaining to the advance of knowledge of drugs and their preparation, the lecturer urged that the two professions unite against everything opposed to scientific pharmacy. The proprietary medicine system being so opposed, it was urgently requested that they unite against it in all its forms. A plan was then proposed to promote interest in the study of drugs by the founding at Washington of a laboratory devoted to scientific work in all the departments of this science, which should undertake a collective investigation of the materia medica of the world, for the benefit of the science of pharmacology. The lecture closed with the sentiment, "Let us then forget the controversies that so easily beset us as pharmacists and physicians, and press forward to the mark of the high calling—a scientific pharmacology."

A vote was taken, and it was declared to be the sense of the meeting that such a laboratory would be beneficial to the true interests of science, and that the plan be recommended advisable.

As the GAZETTE has fought so nobly for the cause of pharmaceutical science as opposed to the proprietary medicine scheme, which is so rapidly reducing professional pharmacy to a mere trade, and injuring the literature of the science of medicine by depriving it of pharmacy altogether, it must be of interest, and of no small gratification, especially after so much unjust criticism, and vile vituperation, from the proprietary medicine interests, and their allies, to find the work going grandly forward, and professional sentiment so decidedly in its support.

The Metric System.

There are probably a large number of old practitioners, who, like myself, are constant readers of the GAZETTE; and who were never so fortunate as to have learned the metric system. They are moreover, too busy to stop now and study it, and are compelled to pass by many good articles in the medical journals, because the metric system is unintelligible. Many of our best new remedies are not officinal, and hence we are unable to learn the dose from the formula laid down by our more fortunate young brethren. Are we to be debarred from the use of a good remedy because a few persons can read a system that is not familiar to us? I have tried a little to look into the metric. In my pocket record book I find it, and yet I cannot familiarize myself with it; and if I did it would require more time and patience than I have at my command, to convert it into our good old system. I fail to see the great convenience in using a number of figures instead of a single symbol. Here is an illustration from the November number of the GAZETTE.

℞ Calcii sulphidis 0.25.
Carbonis animalis 1.co.
Rad. liquirit 2.00.
Ext. gentian, q. s.

The above to be made into 50 pills, and coated with collodium. Now what part of a grain or gramme does a pill contain? The writer says: "Sulphide of calcium in doses of 0.006 every 1-2-3 hours. * * * * * The extreme ranges between 0.0006 one or two times a day, and 0.06 frequently repeated," etc. Now what does he mean? How easy, ye gods! Now I do not wish to offend any one; but I do wish that Americans would use the language when writing for the public, known and read by Americans. Until this, to me troublesome metric system, is taught in all the public schools, and becomes the method of *thinking* by the people, it smacks of pedantry for men to continually be thrusting their superior attainments of a system of a doubtful utility down everybody who attempts to read their papers.

Whenever I see a paper filled with numerals when giving the doses of a medicine "it makes me tired."

Please ask contributors to the GAZETTE to keep back their figures until the next generation, and then they will have accumulated enough to make a grand showing. Something like sodii chlor. 0.000000000001.

B. F. RECORDS, M. D.

LIBERTY, MO.

Remedies for Chillblains.

My success in the treatment of chillblains has not been satisfactory. What treatment have you found most successful? Perhaps it would interest other readers of your valuable journal to know.

W. J. WILCOX, M. D.

BALLSTON, N. Y.

[We know of no remedy which can be said to be specific in this insignificant and yet frequently very annoying affection. Painting with the tincture of iodine is often successful, and we have known applications of a solution of tannin in glycerine, ℥ j : ℥ j, to give satisfaction. Applications of the muriate tincture of iron, too, is an excellent remedy in some cases, and the aqua creasoti of the U. S. P. is a good topical remedy.—ED. THER. GAZ.]

The Therapeutic Gazette

WILLIAM BRODIE, M. D., Editor.

ASSOCIATE EDITORS:

J. J. MULHERON, M. D. and A. B. LYONS, M. D.

DETROIT, MICH., Jan. 15, 1884.

GEO. S. DAVIS, Medical Publisher, Box 470.

SUBSCRIPTION PRICE (Postage Included) $1.00

Single copies 10 cents.

Back numbers will be furnished at subscription rates, with extra charge for postage.

Foreign subscriptions may be ordered through our Great Britain agent, Mr. H. K. Lewis, Medical Publisher and Bookseller, 136 Gower street, London. Price 5s. Remittances may be made either by Postal Order or Stamps.

Price to Foreign Subscribers direct (postage included) $1.25 (5 shillings.) English postage stamps received on remittances.

The Therapeutic Gazette for 1884.

IN fulfillment of the promise of our publisher to recognize the increased support accorded the THERAPEUTIC GAZETTE, by efforts on his part to make the publication of increased value to its readers, we take pleasure in calling attention to the addition of four pages to the present number, which increase in size will be continued to each number of the current volume. Ever since its first publication the THERAPEUTIC GAZETTE has furnished the most material for the least money of any journal extant. From year to year the publisher has made good his promise as above indicated, and this latest increase makes the publication one of very remarkable cheapness. It will be readily understood that this increase is only possible through the large patronage which the journal receives, it having now, without exception, we think, the largest *bona fide* subscription list of any medical journal published in this or any other country.

While we congratulate our readers on their receipt of the above dividend from the success of the GAZETTE, we trust they will not close their eyes to the fact that increased advantages impose increased responsibilities. In our position as editors the responsibility is very direct, as it devolves directly on us to supply the material necessary to fill up the additional four pages. The task is by no means a trifling one, more especially when the fact is recalled that the department of "Therapeutic Progress" has been for some time, and will continue to be, Editorial Abstracts from current literature, instead of, as formerly, and as is the case in the great majority of journals, being made up of pure clippings. This condensation permits of an addition of not less than fifty per cent. of matter in this department. We feel called upon, under the circumstances, to especially urge our readers to assist us with their contributions, having the assurance, too, that in thus assisting us they render themselves the most valuable assistance. The phenomenal success of the GAZETTE is very largely due to the fact that it has been a medium through which its readers have freely expressed their opinions and interchanged views. Its further success must continue largely to depend on this feature, which we sincerely trust may suffer no neglect during the year now entered upon. The office of the practitioner of medicine carries with it the obligation to communicate, for the benefit of the profession, the results of each member's experience, and the physician who fails to thus do comes short of his implied trust. Should each of our not less than 15,000 readers, contribute during the current year, but one single observation in his experience, the accumulated whole would make a volume whose influence in the field of medical literature could scarcely be computed. Let the experiment be made. Let no one hesitate to write through fear of the literary inelegance of his contribution. It is the function of the editor to see to it that such inelegance be corrected before the matter goes to print. Therefore are we editors, and it is never supposed that the practitioner who sends in a contribution shall relieve us of our duty. If he can, just as easily as not, send in manuscript which requires no editing, the joy to the editorial heart is, of course, enhanced, but it is the facts and observations regardless of their original literary clothing that we are after. "The hardest thing in the world, sir," said Dr. Johnson, "is to get possession of a fact." Observers are too prone to report what they think rather than what they see. Give your journal the facts and if these go out improperly clad the blame lies at the editor's and not at the contributor's door. This has come to be a universally conceded fact in journalism.

And now a word for the publisher: It costs money to run a medical journal. Paper-makers, compositors, pressmen, binders and our venerable Uncle Sam are inexorable in their demands for cash. This cash the publisher expects to collect in little parcels of $1 each from every one who buys his paper. He is the middle man between the subscriber and the inexorable individuals above referred to—only that and nothing more. The deduction from this simple statement of facts is too obvious for mention. But the question of time is an important consideration in this matter, and it is particularly to urge prompt payment of the dollar that we make this special reference. It would facilitate the financial matters of the GAZETTE to an extent the knowledge of which would of itself yield a ten-fold return on his investment, were each subscriber, immediately on finishing the reading of this, to enclose one dollar (and, if possible, another dollar for an additional subscriber) addressed George S. Davis, P. O. Box 470, Detroit, Mich.

Purity of Drinking Water.

IS it possible by any physical, chemical or biological examination of a sample of drinking water to determine whether it is contaminated with dangerous impurities? The question is one not merely of speculative but of the profoundest practical interest. Chemical experts have pronounced opinions with a good deal of confidence in regard to the character of a certain drinking water, while experience has pronounced a contradictory verdict. Again chemists themselves have disagreed in their judgments, almost as widely as in their methods, and each has defended his favorite mode of analysis, insisting that

all others are liable, if not certain, to give erroneous results.

Such being the condition of matters, it seemed expedient to our National Board of Health to authorize a thorough and impartial study of the several methods which are advocated by chemists with a view to determine their absolute and relative value.

The necessary experiments were intrusted to experts, and were conducted with the utmost care, the results reached by the different processes having been brought into comparison only after the entire series of experiments was finished. The work occupied about two years and a half, and has been reported in detail so that the precise ground for each of the conclusions reached may be apparent to all who are sufficiently interested in the matter to review the work in detail.

The task of arranging the experiments and collating the results was entrusted to Prof. J. W. Mallet, and his preliminary report published in the American Chemical Journal is a model in its broad handling of the subject, its clear, logical arrangement and its terse statement of facts and conclusions.

Three principal methods are in use among chemists of determining the nature and amount of organic contamination in potable waters: 1st the combustion process of Frankland and Armstrong; 2d the albuminoid-ammonia process of Chapman, Wanklyn and Smith, and 3d the permanganate process, suggested by Forchhammer, and more carefully studied by Tidy, and employed in a modified form by Kubel.

The first is of necessity a process of great delicacy, and requires not only unusual skill on the part of the operator, but especial apparatus and a familiarity with its use that can be obtained only by constant practice. In this process the water is evaporated to dryness, and the residue subjected to a process of combustion by which the quantities of carbon and of nitrogen are determined. The total amount of these elements is an index of the amount of organic matter present, while the relative proportion of nitrogen to carbon is relied upon to determine the nature of that contamination, whether vegetable or animal. It must be borne in mind that the absolute quantities of organic matter which require determination is extremely minute, and a variation in the result of one one-hundredth of a grain of either of the elements determined will quite change the deductions to be drawn from the analysis.

Prof. Mallet found that in duplicate analyses of the same water there was often a variation in the figures obtained amounting to twenty and even forty and fifty per cent. of the whole. The experiment must always be made in duplicate, and the results accepted only when they exhibit a close agreement one with the other. Even then it may be expected that there will be a variation from the truth in the carbon determinations of fully three per cent., and in those of nitrogen of seven per cent.—as a rule the carbon is underestimated while nitrogen is over-estimated. The smaller the amount of contamination the greater is this divergence, so that a water which, from the relative proportions of nitrogen and carbon found in it, is judged to contain vegetable impurities, which are assumed to be comparatively harmless, by mere dilution with its own volume of distilled water is converted into a water which is prouounced "suspicious" or "dangerous" from the presence in it of impurities of animal origin.

The second process is one which has been more extensively employed than any other, and one which especially commends itself by its simplicity. It does not attempt any absolute determination of the organic matter, but seeks rather for evidences of putrefaction and especially of the presence of putrescible matter. Only those substances which contain nitrogen are subject to putrefactive changes, and in the putrefactive process the nitrogen is converted into ammonia. The more easily this change can be produced by chemical means, the more dangerous we may suppose is the nitrogenized compound present. The analysis, therefore, consists in a determination, 1st, of the amount of ammonia, free or combined with acids, contained in the sample; and 2d, of the amount of ammonia produced by the action at a boiling temperature of a strongly alkaline solution of potassium permanganate. The rapidity with which the ammonia is evolved is noted also, as valuable evidence with regard to the nature of the substance furnishing it.

It may be said of this process, first, that it is so simple that any person at all accustomed to chemical manipulations can carry it out without difficulty, and second, that the results of duplicate analyses exhibit closer concordance among themselves than is the case with results obtained by combustion, but third, that these results cannot be relied upon to determine even approximately the total amount of nitrogen present in the water. The average divergence of results obtained in duplicate analyses was for free ammonia 2.23 per cent., for "albuminoid" ammonia (*i. e.*, that derived from the decomposition of nitrogenized organic matter) 3.62 per cent. The defects pointed out by Prof. Mallet in this process are: first, the loss in the process of distillation of a notable quantity of ammonia, which can be obviated by the use of a more efficient condenser; second, the possibility that in the first distillation for free ammonia certain compounds, such as urea, leucine and tyrosine, are partially decomposed, increasing thus the apparent amount of free, and diminishing correspondingly that of albuminoid ammonia. Since it is the latter especially which is regarded as evidence of dangerous contamination of a drinking water, the result of the analysis may, therefore, be too favorable; third, if the process is carried out in the usual manner, discontinuing the distillation at a certain point, much of the albuminoid compound may remain undecomposed, and the results obtained will be too low in consequence. This, however, is only a defect in detail, easily overcome by prolonging the distillation as long as ammonia is formed.

As a matter of fact the deductions drawn by Dr. Smart, who conducted the experiments with the albuminoid-ammonia process, were in most cases remarkably just. He rightly concluded that where the evolution of ammonia in the second portion of the process was rapid, there was present some actually putrescent matter, or some of the products of putrefaction, or some excrementitious matter—all impurities of the most objectionable kind. Where the evolution of ammonia is slow, he concludes that the organic matter furnishing it is of a less dangerous character.

The third method of judging of the character of a potable water is the most simple of all, viz.: observ-

ing the quantity of a solution of potassium permanganate of known strength which the water is capable of decolorizing under certain stated conditions. In the method of Tidy the experiment is carried on at the ordinary temperature, and the quantity of permanganate solution reduced at the end respectively of one and three hours is noted. Kubel operates at the boiling point, and conducts the experiment more expeditiously, but with a loss sometimes of volatile organic matter, and without the advantage of discriminating the readily oxidized and hence more putrescible substances from those more slowly oxidized.

As a rule the results of duplicate experiments by the permanganate method are closely concordant, the average divergence being in the experiments lasting one hour only 1.09 per cent., and in those lasting 3 hours 0.56 per cent. of the whole amount. On the other hand, the amount of permanganate solution consumed does not indicate even approximately the amount of organic matter present. The test is one of unquestionable value—of very high value, no doubt, but its indications cannot be interpreted with any certainty except as they are supplemented by those obtained from other processes.

The rapidity of deoxidation of the permanganate solution is the point to be especially observed. To this end there should be not two but at least six or eight experiments made. The amount of reduction at ½, 1, 3, 6, 9, and 24 hours should be noted, and the experiments to be of any value should be conducted at a uniform temperature of say 70° F.

Some chemists have laid great stress on a determination of nitrates and nitrites in a drinking water. Professor Mallet found that in most samples of water that had been known to produce disease, as well as in several that had been regarded with suspicion, nitrates were present often in large proportion, and in several instances nitrites also were found He quotes with approval the language of Ekin, who has had a large experience in the examination of potable waters:

"Waters which have undoubtedly given rise to typhoid fever have been found by the writer, over and over again, not to contain more than 0.05 in 1,000,000 of albuminoid ammonia, and which notwithstanding their containing a large excess of nitrates have been pronounced fit for drinking purposes. The attention of the writer was particularly drawn to this in the case of a district where typhoid fever was hardly ever absent, and where the conditions were such as pointed exclusively to water as the cause of the trouble. Of the samples of this water analyzed only two contained an excessive amount of albuminoid ammonia, but all contained a large excess of nitrates. When the amount of nitrates exceeds 0.5 or 0.6 parts in 100,000, it points significantly to dangerous pollution.

Nitrogen as nitrates should be invariably absent from a good water. This view of the importance of the nitrates has been formed in spite of a considerable predisposition to a contrary opinion, and has been literally forced upon the writer again and again, by the investigation of cases which leave no doubt in the matter."

The investigation included the examination of about 140 samples of waters, natural and artificial, which were classed as follows:

Class I. Natural waters believed to be of wholesome character.

Class II. Natural waters to the use of which cases of sickness had been ascribed.

Class III. Natural waters of doubtful, or more or less suspected character.

Class IV. Artificially prepared water, containing known amounts of vegetable organic matter.

Class V. Artificially prepared waters, containing vegetable refuse from manufacturing operations, etc.

Class VI. Artificially prepared waters, containing impurities of animal origin, such as are likely to be met with in streams, wells, etc.

Class VII. Waters containing animal refuse from manufacturing operations.

Class VIII. Waters containing morbid products *e. g.* excreta of typhoid fever patients.

Class IX. Solutions in distilled water of known quantities of certain organic substances of definite chemical composition.

It was instructive to observe the conclusions drawn from many of the analyses in view of the known character of the water. It was observed especially that while dilution of the impure water modified materially the results obtained by combustion and to a less extent by the albuminoid ammonia process, it had comparatively little influence where the permanganate process was used.

Another point is noteworthy. In the artificially prepared waters containing fæcal matter, the result of analysis interpreted in the usual manner pointed always to vegetable rather than to animal contamination. When the fluid excreta were present, on the other and, the impurity was readily recognized as of animal origin. The reason of this apparent anomaly is of course that fæcal matter in effect does consist largely of vegetable matter, and that the biliary constituents also are peculiarly rich in carbon, while the nitrogenous waste of the system appears largely as urea.

An attempt was made by means of biological experiments to ascertain the character of the several specimens of water analyzed. The animals experimented upon were rabbits, and we infer from the language of the report that the water was injected into the veins. The results, however, seem to be of less value than those of the chemical examination of the same specimens. They are summarized as follows:

	Number in class.	Results of Professor Martin.		Results of Doctor Hartwell.	
		Dangerous.	Suspicious.	Dangerous.	Suspicious.
Class I.....	19		4		7
" II....	19		2		1
" III..	20	2	1	1	3
" IV ..	20	3	3	3	2
" V....	21	4	5	2	10
" VI .	21	4	1	1	6
" VII..	15	4	3	4	7
" VIII	4	1	2	2	1

The most remarkable deduction from these experiments is that water containing such vegetable organic matter as is ordinarily considered innocuous, is capable of producing in rabbits marked pathological effects. One sample of the water pronounced dangerous was simply an infusion of forest leaves; another was the peaty water of the dismal swamp. It is true that in most of these cases the water was charged with an amount of organic matter not likely to be found in any drinking water, and that when diluted sufficiently it proved harmless. On the other hand, it will be observed that of the waters containing putrescent matter, Nos. VII. and VIII., a very large proportion were pronounced dangerous, as might have been expected.

Prof. Mallett sums up his general conclusions briefly as follows:

"1. It is not possible to decide absolutely upon the wholesomeness or unwholesomeness of a drinking water by the mere use of any of the processes examined for the estimation of organic matter, or its constituents.

"2. I would even go further, and say that, in judging the sanitary character of a water, not only must such processes be used in connection with the investigation of other evidence of a more general sort, such as the source and history of the water, but should even be deemed of secondary importance in weighing the reasons for accepting or rejecting a water not manifestly unfit for drinking.

"3. There are no sound grounds on which to establish such general standards of purity as have been proposed, looking to exact amounts of carbon or nitrogen, albuminoid ammonia, oxygen of permanganate consumed, etc., as permissible or not. Distinctions drawn by the application of such standards are arbitrary, and may be misleading.

"4. With the facts of this investigation before me, I am inclined to attach special and very great importance to a careful determination of the nitrates and nitrites in water to be used for drinking purposes.

"5. If I had intrusted to me the charge of watching a large city water supply I should use all three of the principal processes for the examination of the organic matter present; each gives a certain amount of information which the others do not afford."

The Trials of the Experimental Therapeutist.

THE Lancet of November 3, 1883, contained a paper by Drs. Sydney Ringer and William Murrell embodying the results of certain experiments made to determine the value of the nitrite of sodium as a therapeutic agent. This substance had previously been determined to have properties which suggested its applicability as a remedy in epilepsy, and, indeed, it had already been recommended as a drug of value in this affection so rebellious to treatment by the means heretofore in vogue. With that spirit of scientific enterprise which has characterized these gentlemen, and which has borne fruit in the therapeutic advances which have been credited to them during the past decade, they sought to apprize the profession of the true value of this new agent. Their experiments showed it to be a substance of such intense activity as is calculated to discourage its further trial by the rank and file, and with the ingenuousness and honesty of the true scientists that they are, they did not hesitate to make public the results. The publication of their report brought down upon them the most violent denunciation of that class of pseudo-humanitarians who have of late years so embarrassed the efforts of the biologist and physiologist in England. And the venomous attacks were not confined to the laity or to the secular press. As an illustration of the stab they received in the house of their friends we reproduce, with feelings of pain, the comments on their report by the Medical Times and Gazette:

"In publishing, and indeed in instituting, their reckless experiments on the effect of nitrite of sodium on the human subject, Prof. Ringer and Dr. Murrell have made a deplorably false move, which the ever-watchful opponents of vivisection will not be slow to profit by. They cannot allege that they were driven to the experiments by the Vivisection Act, for they preface their account of their *clinical* observations by a description of *pathological* observations on two cats, who [*sic*] rapidly succumbed to the drug. Nor have they the excuse that the effects of nitrite of sodium on the human subject were unknown, for Dr. Ramskill and Dr. Ralfe have placed on record six cases in which its administration was attended by the most serious consequences—lividity and semi-collapse. It is impossible to read the paper in last week's Lancet without distress. Of the eighteen adults to whom Drs. Ringer and Murrell administered the drug in ten-grain doses, all but one avowed that they would expect to drop down dead if they ever took another dose. One woman fell to the ground, and lay with throbbing head and nausea for three hours, another said it turned her lips quite black, and upset her so that she was afraid she would never get over it. The next series of experiments was with five-grain doses. The same results followed in ten out of sixteen cases. One girl vomited for two hours and thought she was dying. Even in three-grain doses the drug caused unpleasant symptoms in four out of thirteen parties to whom it was administered. All these observations are recorded with an innocent *naïveté*, as though the idea that any one could possibly take exception to them were far from the writers' minds. But whatever credit may be given Drs. Ringer and Murrell for scientific enthusiasm, it is impossible to acquit them of grave indiscretion. There will be a howl throughout the country if it comes out that officers in a public charity are trying such useless and cruel experiments on the patients committed to their care, and the whole profession will be placed in a false position. The public will not understand that such a method of conducting out-patient practice is altogether exceptional, and would not meet the approval of half a dozen doctors in the metropolis. It is with the view, if possible, of forestalling the outcry of the anti-vivisectionists and counteracting the effects of this terribly false step, that we have felt ourselves compelled, reluctantly, to enter this protest against it."

A more deft manipulation of facts for a purpose or a more cruel stab under the plea of the professional weal, it would be difficult to conceive. Whether the hue and cry which the public raised following the paper by Drs. Ringer and Murrell, took the cue from the article quoted we do not know, but certainly this contemporary which professes such regard for professional interests, could not have taken

a more successful means of arraying the public against those interests. It is gratifying to note, however, that this article does not voice the professional sentiment of Great Britain in this matter. Although the names of Drs. Ringer and Murrell are attached to this report it was generally known that the latter alone was the author of it. A deep feeling of professional sympathy exists for him, and it has begun to take expression in propositions to tender this conscientious and enterprising young scientist some form of public testimonial and exoneration.

The Hospital Sub-Committee to whom the matter was referred for investigation, although showing in their report strong lay prepossessions entirely acquitted Dr. Murrell on the facts. They take occasional specifically to state that "Dr. Murrell's attention was first called to the use of nitrite of sodium in epilepsy and certain diseases of the chest, by a statement made by Dr. Law, in the Practitioner, that he had successfully employed it in 20-grain doses. The whole of the cases treated by Dr. Murrell, more than twelve months ago, and prior to his appointment, in April last, as Assistant Physician to Westminster Hospital, were expressly selected by him from a very large number of out-patients at another hospital with which he is connected, and were all of them suffering from diseases for which this drug, and other allied drugs would be suitable. There is no ground, whatever, for believing that any patient was treated by way of simple experiment, without reference to the presence of a specific disease, and without *bona fide* belief that the treatment would be beneficial to the individual patient. The Sub-committee have been assured that none of the patients suffered any ill-effects from the doses actually taken, while many of them received ultimate benefit, and willingly continued under Dr. Murrell's care, until they ceased to be out-patients. This it is important to notice, as a proof that the alarm expressed by the patients in describing the effects of the medicine upon them was not so serious as the terms employed by Dr. Murrell would seem to indicate."

The Use of Drugs Whose Properties are not Fully Known.

THE Sub-committee of Westminster Hospital to which we have above referred, as having in charge the investigation of the charges made against Dr. William Murrell, while exonerating Dr. Murrell from these charges close their report with the somewhat remarkable recommendation: "that in respect to the treatment of out-patients, who of necessity cannot be under constant clinical observation, no remedial agent, the properties and effects of which are not fully ascertained, shall be administered by the medical officers in charge." The British Medical Journal in commenting on this clause of the report, takes occasion to say that it would be very satisfactory if this committee could make a list of what it considers to be the drugs which satisfy the conditions of this rigid formula, and especially, also, of well-established doses, for such drugs, in various conditions of disease, different ages and constitutions.

On this subject the proceedings of the Royal Medical and Chirurgical Society may be well consulted. Is jaborandi a drug of which the properties and effects are fully ascertained? Is its use as a matter of tentative therapeutics to be prohibited, for example, in myxœdema? Compare with such a conclusion the discussion of the Clinical Society of London. Are the properties of convallaria majalis well established, and is this to be prohibited, or nitrite of amyl? Is mercury a well-established drug, or venesection a well-established mode of treatment, and in what cases, and with what symptoms? So long as medicine remains as it is, and has been now for some centuries, an inexact science, and an experimental art, it is utterly unreasonable to pass any such resolution, which has, in fact, no definite meaning, and which, under such circumstances, becomes merely an instrument of possible oppression and persecution. Let us compare, for example, the practice of the Temperance Hospital, which carries on the great experiment with all its patients of refusing them alcohol, with the existing decision of the physicians of the Manchester Infirmary, who decline to submit a great body of patients to any such wholesale and mechanical experiment; and put to this the denunciation by the Rev. Mr. Horsley, who insists that it is the duty of all medical men to subject their patients to the experiment of refusing to prescribe alcohol under any circumstances, and let them recover from exhausting diseases as best they can without it. Is the mint-water treatment of rheumatism a well-established treatment? or of which of the numerous drugs in the Pharmacopœia can the properties, mode of action, and effects be considered to be well established in disease? When was the salicylate of soda well established, and how was it introduced except by employing it in the first instances precisely on the same basis on which Dr. Murrell used the nitrite of sodium? How did Dr. Lauder Brunton first establish the immense value of nitrite of amyl in angina pectoris? and, in fact, how is medicine to be advanced, or medical practice carried out, except by employing in the treatment of disease such drugs as there are scientific experimental grounds for believing to be suited to the particular features of the case, and by adding day by day accumulating clinical facts? The whole basis of medicine and medical practice is, and has been for the last twenty-five years, undergoing a complete recasting, and it would be extremely difficult to say of most drugs that they are well established in particular diseases, in particular cases, or in a given set of symptoms. Medicine is essentially an experimental science or art, and the most accomplished and sagacious clinical teachers have long taught that the treatment of every case is, in fact, a clinical experiment; for no two cases agree in their combinations of elemental symptoms. Every case stands by itself, and the administration of a dose of blue pill is as much an experiment as the administration of three grains of euonymin; a drug of which the experimental basis of therapeutic use was recently established by Professor Rutherford, and of which the precise clinical uses yet remain to be settled by a wide basis of clinical experience. This resolution largely adds to the dangers which beset the practice of the most accomplished and eminent therapeutists, and indicates the peculiar need in which they stand of the united sympathy and support of their professional brethren in their efforts, at the same time, to promote the welfare of their patients, and to advance the scientific knowledge and use of the oldest drugs, as well as most recent additions to the armory of

therapeutics. If such a resolution as this were to become general, it would, unless applied with a very different spirit to that which has marked the treatment of Dr. Murrell, be completely obstructive of the progress of medicine, and add largely to the dangers and pains which attend the course of the practitioner.

Signatures Endorsing Nostrums.

THE Medical Gazette, in a recent number, throws a flood of light upon the manner in which the names of medical gentlemen standing high in the estimation of the profession are secured to endorsements of nostrums, in violation of the code of ethics by which these gentlemen are confessedly governed. A certain manufacturer, or dealer in wines, in New York City, whose advertisements have been conspicuous for the number of names of eminent physicians which they have contained, has attached to them the name of Prof. Frank H. Hamilton as an endorser. Dr. Hamilton communicates to the Medical Gazette a very spirited protest against this use of his name. He says: "I have recently seen a circular issued by L. Reich in which my name appears as recommending certain wines. I wish to say through your journal that some time since Mr. Reich brought me an album, and laying it open before me asked me to add my name to that of other members of the profession which the album contained, and I did so. If the album contained, as I am now informed it did, recommendations of his wines, he did not so inform me, and I did not know it."

Our contemporary very fitly asks: What more urgent plea than the above could be presented for the abolition of this unprofessional habit of lending one's name to promote the business interests of a dealer in wines or nostrums? No doubt the professional men who are most sought after for these advertising purposes, frequently consent to their names appearing through charity or indifference, or perhaps to rid themselves of a persistent solicitor, or in acknowledgment of some favor from the dealer. In whatever way such endorsements are obtained, whether by consent or by fraud, as in the case published above, such practice is most compromising to the dignity of the profession and a flagrant violation of ethics, and cannot but belittle those who lend themselves to it, and leave them open to the suspicion of being influenced by pecuniary consideration. The medical press has repeatedly alluded to this evil. It is an abuse that cannot be too speedily abolished.

The Index Medicus.

THE publishers of this journal lay before the profession an exhibit of its financial status, and asks "Shall the Index Medicus be discontinued?" It costs to issue it, $5,000 a year. The maximum return from its subscription list at $6.00 per annum has not exceeded $3,600. The increase of subscriptions during the past two years has been merely nominal. The limited circulation permits no material return from advertisements. Since there are only 600 subscribers to whom the journal seems to be a necessity, these are asked to further tax themselves for its support, and the following two questions are submitted for their answer: I. If the future subscription price of of the Index Medicus is fixed at $10 per annum, are you willing to renew your subscription for 1884 at that rate? II. Should not 500 subscribers renew at $10, will you be one of 417 subscribers who are willing to renew at $12?"

It would be a professional calamity should this publication suspend, and it would be an injustice for the profession to place the burden of its cost on a few. It should have at least 2,000 subscribers out of the 75,000 physicians of this country. With this number the load would be an easy one to bear.

EDITORIAL ABSTRACTS.

The Preventive and Curative Treatment of Puerperal Fever.

In a paper recently read before the New York Academy of Medicine and published *in extenso* in the New York Medical Journal, for Dec. 15th, Dr. T. Gaillard Thomas discusses with that beauty and conciseness of language for which he is so noted, the subject of puerperal fever, but dwells more particularly on its prophylaxis and therapeutics. He passes in review the various theories which have from time to time been advanced touching the etiology and pathology of this scourge of the lying-in room. Without attempting, within the limits of our space, to follow him in his discussion of these various theories, we shall content ourselves with merely referring to his statement of the fact that a proper conception of the means necessary to the prevention and treatment of the disease can alone be derived from viewing it in connection with the germ theory. To view it in connection with any other theory is but to tie the hands of the practitioner who essays to treat it. But while the cause of the disease is a germ, that germ takes root and germinates only in soil which is especially adapted to its growth. Such soil exists in the case of the puerperal woman, inasmuch as a precisely similar fever can be found under no other circumstances. What the exact peculiarity of that soil is it yet remains for science to discover. Of this much we are, however, already satisfied, namely, that the blood of the puerperal woman is in a condition of hyperinosis—that is to say, it contains a great excess of fibrin—a fact which is demonstrable in the blood drawn by venesection, which presents the buffy coat upon which our forefathers laid so much stress. This excess of fibrin causes two liabilities—first, a tendency in such blood to form thrombosis in the heart and blood vessels; and second, a tendency to prove a most prolific ground for the development of sepsis and zymosis. Measles, scarlatina and varioloid which give no very bad prognosis when they excite zymosis in the blood of the non-pregnant woman, commonly produce death when they act upon the blood of pregnancy. The nervous system, too, is in a plus state of sensitiveness and excitability, and influences which are very controllable in the non-puerperal state produce very evil results here. This fact is seen in the convulsions which an accumulation of urinary poisons in the blood produces in the puerperal woman; the violent mania which results from untoward moral influences, the spasmodic affections of the alimentary canal, which results from crude ingesta, which in the

same woman when not pregnant would scarcely have produced an appreciable symptom. In the normal puerperal state the discharges are of an irritant character, capable of producing inflammation of the abraded surface, with a certain amount of lymphangitis even in the healthy male. The wonder, therefore, is that puerperal septicæmia is the rare accident that it is, even though averaging an occurrence of once or twice in every one hundred accouchements, seeing that even in normal labor there is a large extent of denuded surface in the uterus and numerous lacerations of the vagina and its vulvar opening. In every puerperal woman there are thus present all the conditions which, so far as we are able to discover them, are necessary for the development of puerperal septicæmia, the occurrence of which in individual cases is, however, due to a something which has thus far remained beyond our ken. What is the nature of this subtle, deadly poison, which, entering like a ferment into the genital canal of the puerperal woman, whose blood is hyperinosed, whose nerves are in a condition of hyperæsthesia, whose utero-placental vessels are partially open, whose cervix uteri, vagina and vulva are covered with fresh superficial wounds, and whose womb is pouring slowly forth a fluid composed of dead tissue, decomposed blood, and recently exfoliated cells, gives rise to so much disturbance? What do we know of the poison? What is its natural history? What encourages its life? Or what kills it, or cripples its activity? Uufortunately these questions cannot to-day be satisfactorily answered.

German pathologists have proved that the presence of micrococci, and more especially of the round bacteria, occurs so frequently in the pathological products of puerperal diseases as to lead to the conviction that they are important factors in reference to them; but this point, like many others connected with the influence of bacteria as morbific agents, is yet too unsettled for admission into a practical treatise on the subject of puerperal septicæmia. But even although we do not at present know the exact nature of the poisoning which proves the disturbing element in these cases, we surely know that some such toxic agent exists without the patient, and it behooves us to learn how to prevent its entrance into the genital tract, how to destroy its life or its activity if it should gain admission in spite of our care and watchfulness. There is only two methods by which it can reach the parturient tract and exert its baneful influence—namely, it may be carried to the vulva and into the vagina through the open orifice of that canal by the atmosphere, in which floats an impalpable substance; and second, it may be caried to any part of the genital tract by fingers of the doctor or nurse, by towels or clothes laid against the vulva, by sponges used in washing, by instruments used in the delivery of the child, drawing of urine, or injecting the vagina, and from the bed-clothes or the body-clothing of the patient, which are in immediate contact with the sexual organs. It is upon the belief in the possibility of the entrance of the virus through these two methods only, that Dr. Thomas bases his prophylactic treatment. His instructions under this head are undoubtedly valuable, notwithstanding the fact that in general practice insuperable obstacles to their obedience will be found to exist. This fact, does not, however, invalidate their correctness, and it should be the object of every accoucheur to follow them as closely as circumstances may permit. We shall briefly enumerate these instructions:—

Prophylaxis. 1. The lying-in chamber should be divested to as large an extent as possible of unnecessary upholstered furniture, curtains and carpets, and the walls and wood-work should be thoroughly washed with a ten-per-cent solution of carbolic acid or a solution of corrosive sublimate, one part to one thousand.

2. The nurse and physician should be thoroughly clean, as to both their persons and clothing, and free from exposure to the effluvia of any septic affection. Neither of them should have been exposed within a fortnight to the effluvia of any contagious diseases; and prior to entering upon their duties their entire body, and especially the hair and beard should be bathed with an antiseptic solution. Dr. Thomas prefers a saturated solution of boric acid for this purpose.

3. As labor sets in, the nurse, her hands and finger-nails having been thoroughly cleansed and soaked in an antiseptic fluid, should administer to the patient a warm vaginal injection of an antiseptic character. This should be done every four hours during labor, and a napkin wrung out of the antiseptic fluid should be kept over the genital organs until the birth of the child.

4. The doctor, as well as the nurse, before entering upon his peculiar office, should thoroughly wash his hands with soap and water, scrub the nails with a stiff nail-brush, and soak the hands for several minutes in a corrosive sublimate solution of one to a thousand.

5. After expulsion of the child care should be taken that all portions of the placenta and membrane have been removed, and ergot should be administered in moderate doses three times a day and kept up at least for a week for the complete closure of the uterine cavity, expulsion of clots and the occlusion of the utero-placental vessels.

6. The doctor should closely examine the vulva of the patient at the close of labor. If the perinæum be found lacerated it should be at once closed by suture. Slight solutions of continuity should be dried by pressure of a linen cloth touched with equal parts of sol. ferri persulphate, and carbolic acid, again dried thoroughly by pressure with the cloth and then painted over with gutta percha collodion.

7. In six or eight hours after the labor, when the patient has rested, the vagina should be syringed out with the antiseptic solution indicated, and a suppository of cocoa butter, containing from three to five grains of iodoform, should be placed within it under the os uteri.

8. These vaginal injections and suppositories should be repeated in cases of normal labor every eight hours. In cases of difficult or instrumental labor, twice as often, and they should be kept up for at least ten days, the nurse observing to the last the precaution already mentioned, of washing her hands before every approach to the genital tract of the patient.

9. When catheterization is necessary a new gum elastic catheter, previously immersed in antiseptic fluid, should be employed, and the very common and very bad habit for nurses to own silver catheters

which they carry about with them from case to case of midwifery cannot be too severely condemned.

10. The physician should feel it incumbent upon him to be satisfied, through personal observation, as to the competency of the nurse to syringe out the vagina throughly, to place the antiseptic suppositories where they should be placed, and to use the catheter without injury to the patient.

Therapeusis: The diagnosis having been made, all pain and nervous perturbation should be allayed by hypodermic injections of morphia, provided there exists no idiosyncrasy to prevent the employment of opium or its preparations. Dr. Thomas regards this method of giving opium as much better than any other. A sharp, new needle should be used on the syringe and previously dipped in corrosive sublimate solution, 1:1000. This latter precaution will prevent the formation of abscesses.

2. The physician must now decide as to the point at which the virus has entered, that is, whether it is seated between the os internum uteri and the vulva, or in the endometrium above the former point If he decide in favor of the former view he should persist for a time longer in a more thorough use of vaginal injections. If of the latter, intra-uterine injections should be at once resorted to. The question of the efficacy or inefficacy of frequent germicide vaginal injections must be decided largely by their effect upon the temperature and the other grave symptoms. Should a failure of these vaginal injections seem to prove that the origin of the disease is higher up the genital tract more decided and radical measures must be taken. The method advised for the administration of these injections is, briefly, as follows: A rubber cloth should be placed over the edge of the bed and made fall into a tub of warm water rendered antiseptic by the addition of 2- or 2½-per-cent. of carbolic acid, or of bi-chloride of mercury, one to two thousand, or of some other reliable germicide. Chamberlin's glass uterine tube must now be thoroughly fitted to a Davidson's syringe, immersed in the tub. The nurse now aiding the patient by the shoulders, and the doctor by the hips, she should be gently laid across the bed and be made comfortable with a pillow under the head. Each foot should rest upon a chair placed by the side of the bed and she should be well covered. The stream of water should be kept gently flowing through the tube by the nurse working the syringe-bulb, while the physician gently passes the tube up to the fundus of the uterus. The stream of water is now projected with gentle force against the walls of the uterus, washing away the adherent blood clots or detaching portions of hanging membrane, and everywhere neutralizing the influence of the poison which has excited disorder. Where there is reason to suspect that portions of the placenta or membranes have been retained it may be necessary to chloroform the patient, and pass the hand up into the cavity, using the finger nails as a curette for the removal of these attached portions. After one thorough injection, after the manner indicated, the position of the patient need not be disturbed, but the injections may be given as she lies upon the bed-pan. Dr. Thomas then enumerates the various sources of danger which are unquestionably attached to these means of administering injections. All of these dangers, he says, may be to a great extent avoided by care as to the details: By using the the large injecting tube, which cannot enter an open-mouthed sinus, by using water warmed to 105 degrees, by injecting the fluid through the tube so as to exclude air before passing this up the os uteri, by using only a moderate degree of force in throwing the charge against the uterine walls, and by proceeding with the whole affair gently, cautiously, slowly and intelligently. A solution of persulphate of iron should be kept at hand for the emergency of sudden hemorrhage from the displacement of a thrombus. Should this accident occur, ergot should be immediately given hypodermically, the iron solution being at once applied to the antiseptic solution, and allowed to pass into the uterus, and pressure be made upon the fundus so as to stimulate the contraction of uterine fibre to accomplish closure of the opening sinuses in that way. The frequency of injections should vary with the gravity of the case. In mild cases, where the temperature comes down after the uterus has been washed out and rises very slowly, an injection once in five hours will be sufficient. In other cases they become necessary once in every three hours, and in bad cases they are required once every hour. These injections should always be administered by a physician, should always be carried fully up to the fundus uteri, and should always be used with every regard to caution as to the details, which has been already mentioned.

3. After this thorough cleansing of the uterus, and the quieting of the patient by means of the hypodermic injections of morphia, the high temperature demands attention. To reduce this temperature Dr. Thomas formerly relied upon an affusion of cold or tepid water. He now uses Chamberlin's rubber tube coil, which consists of a mat composed of a rubber tube rolled upon itself in a circle. This covers the whole abdomen, from the ensiform cartilage to the symphysis pubis. The upper end of the tube which makes this mat is anchored by a weight in a tub of ice water placed about three feet above the level of the patient, and the lower end falls into a tub upon the floor. By syphon action the water of the elevated tub runs through the tube which constitutes the mat and collects in the receptacle on the floor. By this means a temperature of 104 degrees can be very readily, as a rule, though there are exceptions to the rule, kept at 100 degrees for weeks together. Dr. Thomas refers to the difficulty of carrying out this treatment in private practice, owing to the objections interposed by friends, through the complaint of the patient of being chilly. He takes occasion to very emphatically discountenance such fears. Very often the coil will not succeed in controlling the temperature for twenty-four hours. Its prolonged use alone developes and illustrates its great benefits, and removing it from the body for an hour at a time damages its influence very much. He has never seen evil result from the chilliness which it excites, if hot bottles be be kept at the soles of the feet, and not in one instance of hundreds of cases has he ever seen pneumonia or pleurisy excited by it.

4. The nervous system should be so kept under the influence of febrifuge medicines as to keep under control the tendency to chill and pyrexia. For this purpose 15 grains of the sulphate of quinine should be given in capsule, or by suppository, night and morning. To the same end the salicylate of sodium may be employed, and a solid extract of Warburg's

tincture has been employed, given in capsules per rectum, with benefit.

5. The patient's diet should be entirely of liquid food, the staple article of which should be milk.

6. Dr. Thomas insists on the necessity, for the proper carrying out of the line of treatment which he has laid down, of a proper supply of nurses, so that the attending nurse may be frequently relieved. Under no circumstances should the patient be left alone, or the rigid requirements of the treatment neglected. If the patient cannot bear the great expense attendant upon the extra service, the misfortune is hers.

The antiseptics which have been heretofore tried under these circumstances are thymol, boric acid, salicylic acid, carbolic acid and mercury bi-chloride (corrosive sublimate). Of these all have disappeared before the superior merits of the last two, and carbolic acid, which for so long a time has been supreme, appears about to be abolished in favor of the bi-chloride of mercury: 1: 1000 or 2000 of water. For all antiseptic purposes outside of the uterus the bi-chloride is now, owing to the carefully-made and important investigations of Koch, very generally employed in the strength of 1: 1000, and the uterus has now been so often and successfully washed out with this excellent germicide, 1: 2000, as to make us regard its use as an intra-uterine injection as entirely warrantable. If carbolic acid is used in that way it will not be safe to carry its strength beyond a two-, or at most, a two-and-a-half-per-cent solution.

The Use of Bromide of Ethyl as a Precursor to the Administration of Ether.

The reputation of bromide of ethyl is apparently being resuscitated from the very severe injury which it sustained immediately following the report of its unfortunate use in the hands of the late J. Marion Sims some two years ago. We have had occasion within the last few months to refer particularly to the very flattering encomiums of it by the eminent ophthalmologist, Dr. Chisolm, of Baltimore. We now note a somewhat new use of the anæsthetic as reported by Dr. A. E. Prince, of Jacksonville, Ill., in the October number of the St. Louis Medical and Surgical Journal. Dr. Prince opens his article by the narration of facts calculated to substantiate Dr. Chisolm's late report. He then goes on to treat of it as a precursor to the use of chloroform and ether. Its value for this purpose lies in the fact that during the initiatory period of its administration it is not attended by the danger from fatal syncope, which with chloroform makes the surgeon most apprehensive. This period is easily, and almost universally, produced without disagreeable effect, and lasts from fifteen to twenty seconds, after which the patient awakens completely, and often suddenly, without headache or nausea. The administration of the bromide of ethyl is without complicated apparatus, and requires only a porous canvas cone, which is placed over the nose and mouth, the patient being directed to take deep and moderately rapid inspirations. When this is accomplished a few drops of the bromide are poured on the cone. After two or three inhalations these are followed by one or two drachms, depending on whether it is designed to produce partial or profound anæsthesia with unconsciousness. When the vapor is rapidly inhaled the tendency of the agent is to increase the respiratory frequency until the period of complete unconsciousness is reached, at which time normal respiration is resumed. This latter is a valuable sign, for we are by it enabled to know when the patient is ready for the operation. Dr. Prince now relies entirely on this phenomenon rather than the dropping of the hand or other tests of anæsthesia.

To get the best effects from the minimum quantity of ether a canvas cone of two thicknesses of porous material is saturated with it and held as closely as possible over the nose and mouth so as to exclude all air except that which passes through the cone. This is known as the "choking method," and it is attended by the most disagreeable sensations of smothering and strangling, from which the patient often struggles to escape, and which leaves a most dreadful recollection on his mind after awakening. It is to obviate these disagreeable sensations that the bromide of ethyl is recommended. By a few inhalations of the latter the patient is rendered sufficiently unconscious to permit of the above rapid method of securing the full effects of ether anæsthesia.

In discussing the dangers from the use of the bromide of ethyl Dr. Prince refers them to the prolonged use of the drug, which in this manner becomes a blood poison, probably by preventing oxidation. For this reason he discountenances its use in prolonged operations, and holds it *par excellence* the anæsthetic for operations of short duration—sufficiently short, to permit of their completion during the stage of primary anæsthesia. Thus employed he regards it as an absolutely safe anæsthetic—as safe in fact, as nitrous oxide. He reports the effects as detailed to him by dentists who have, on his advice, substituted it for nitrous oxide for the purpose or extracting teeth. These dentists have expressed themselves as very much pleased with the substitution. The anæsthesia by the bromide of ethyl while being fully as safe as that induced by the gas, gives rise to none of that wildness and evolution of sudden and powerful spasmodic action which is so often attendant upon the use of the gas.

What Constitutes Alcoholic Excess.

This very important practical question having been up for discussion before the Philadelphia County Medical Society, Dr. Henry Leffman, struck by the diversity of views expressed thereon, has contributed an article on the subject to the Polyclinic, basing his assertions on recognized authorities. Alcohol is taken in excess when any portion of it escapes unchanged with the excreta. The capability of consuming alcohol must, of course, be somewhat dependent upon the nature of the individual, but the rule as given by Parkes, will be found to be practically reliable. He fixes the limit at one and one-half ounces of absolute alcohol in the 24 hours. When given in excess of this some will appear unchanged in the urine, and the system will exhibit signs of alcoholic narcosis. To convert this amount into approximate equivalents of the given beverages is easy: Brandy, whiskey, rum and gin contain about one-half their volume of alcohol. Wine varies from one-tenth to one-fifth, and some samples are below and some above these limits. Beer contains about one-twentieth. This limit pre-supposes a person whose habits may be said to prepare him for the

taking of alcohol. Such a person is not over-fed, and in the case of those who habitually overfeed themselves the limit as laid down, is excessive.

The author refers to certain papers read before the Philadelphia County Medical Society, in 1881, by Drs. H. C. Wood, Roberts Bartholow, and William Pepper, in which the position is taken that alcohol should only be taken at meals, and then very much diluted.

He further declares that all individuals who habitually eat full amounts of nutriment ought not to use alcohol. The necessity for using the liquor diluted in such cases will be apparent for another reason:

Absolute alcohol must not be given in greater strength than one ounce to ten of water. One ounce would thus make a bulk of about two tumblerfuls of liquid, and if other usual liquids, as water, coffee or tea, were taken at meals we should have an excessive quantity of liquid food. The quantity of alcohol should, therefore, be cut down.

It is clear from a consideration of the question that the taking of alcoholic beverages in the intervals between meals, under influence of social life or acquired custom, must be regarded as instances of alcoholic excess, and that, too, regardless of the amount of a beverage taken.

Iron and Arsenic in Anæmia and Chlorosis.

The New York Medical Journal gives a *resumé* of an article published under this heading by Dr. Frederick Wilcocks, Assistant Surgeon to Charing Cross Hospital, London. Touching the pathology of anæmia Dr. Wilcocks remarks that in severe anæmia either the power of corpuscle formation is almost entirely abolished, or the young corpuscles if formed, have little or no power to absorb hæmoglobin, and consequently do not reach their full development. The comparatively large size which the hæmatoblasts attain without the absorption of any appreciable quantity of coloring matter, would go far to show that the embryonic corpuscles are more or less abortive. Iron in this case is useless beyond a certain point, the existing corpuscle being already overcharged with hæmoglobin. These facts forcibly bear out the hypothesis as to the probable hæmatinic action of iron, namely, that it possesses no power of directly stimulating the formation of new corpuscles by any influence on the cytogenic organs, but that it improves the hæmoglobin richness of already existing corpuscles which are added to the blood by the normal processes, and consequently by improving their physiological value and vitality it indirectly increases their number. Therefore, where the natural power of sanguification is greatly reduced, or almost abolished, iron has little or no beneficial effect since either very few new forms are produced, or even if they are added to the blood, they have little or no capacity to absorb the hæmoglobin and to develop into adult corpuscles.

The contrast between chlorosis and the most severe forms of anæmia, both as regards its blood lesion and its response to the iron treatment, is striking. In chlorosis the supply of young, feebly colored corpuscles is abundant, and the number of red discs to the cubic millimetre may fall in many cases but slightly below normal. The average hæmoglobin richness of the corpuscle is greatly reduced, and the curative effect of the iron is very rapid. A low average hæmoglobin value in the corpuscle is not, however, peculiar to chlorosis, but it is present in the large majority of anæmic cases from all causes. It indicates that feebly colored or young elements are being continually added to the blood, or in other words, that the normal process of globule rejection is active, the numerical rise preceding the rise in the average value of the elements. It is in these cases that iron is indicated. Arsenic was given in two cases of chlorosis, but it had no influence either in preventing relapse on the cessation of iron, or improving the number or value of the red corpuscles. On the other hand, in the most intense forms of anæmia, with great diminution in the number of the corpuscles, and a high relative hæmoglobin value, iron is practically useless or even hurtful, while arsenic may produce a considerable rise in the number of corpuscles, as well as great improvement in the general symptoms.

Jaborandi in Infantile Therapeutics.

Dr. John Tascher communicates to the Chicago Medical Times the results of his experience in the use of jaborandi in the treatment of the febrile and inflammatory diseases of childhood. He regards its febrifuge properties as the direct result of the diaphoresis which it produces. As an abortive in bronchitis and pneumonia in the first stage, he has great faith in jaborandi, declaring that he uses it with as much assurance of arresting the disease as he would use quinine as an abortifacient of intermittent fever. He thinks its action is synergistic with that of aconite, and, indeed, he often prescribes it in combination with the latter drug, especially in localized inflammations. In coryza, or a bad cold, two or three doses of jaborandi before bedtime, with a mustard foot bath, will usually relieve the patient In measles the happiest results have followed its use in his hands, administered before the eruption has made its appearance. In albuminuria, following scarlet fever, with more or less general anasarca, he thinks we have in jaborandi a remedy by means of which we can force the skin to perform the work of its co-laborers, the kidneys, thereby securing for a longer or shorter time the necessary rest to those organs.

Dr. Tascher does not neglect to refer to the depressant action of jaborandi on the heart, and admonishes against its use in low or asthenic conditions of the system. It is in the acute, sthenic febrile and inflammatory affections of childhood that it is indicated. The dose for a child one year of age is from three to ten minims of the fluid extract. It should be borne in mind, he says, that the dose of jaborandi for a child is relatively larger than for an adult.

Beef Tea Too Thin.

The Druggists Journal reproduces from the New York Herald a very interesting interview which its reporter had with a graduate, in which are given some facts and figures which, while thoroughly familiar to the profession, must have been somewhat surprising to the readers of our secular contemporary. He regarded it as a surprising thing that everybody

seems to regard beef tea as a kind of essence of all the strengthening and nutritious qualities of the meat. The fact is that there is in a bowl of beef tea but little, if any, more nutriment than there is in a glass of lemonade, and he proceeds to give the reasons for this founded on the fact, well known to every professional reader, that albumen coagulates at a much lower temperature than that of boiling water used in the preparation of beef tea. Through this coagulation the albumen, or essentially nutritive portion of the meat, becomes entangled in the meshes and firmly held there, little or none of it finding its way into the decoction. The beef tea is, at best, a palatable stimulant.

The scientific gentleman whom the reporter interviewed detailed to him an experiment which he undertook, with a view to determining the relative nutritive value of Liebig's extract of beef. Three dogs were taken and shut up in separate pens side by side. The first dog was ordered a diet of Liebig's extract of beef and all the water he wanted to drink. Dog number two was restricted to water, being allowed nothing whatever to eat, while the third animal was allowed neither food of any kind to eat, nor water. Of course the dog that had no water was the first to die, but, surprising as it may appear, the dog which was furnished with water only, outlived that which was fed on the meat extract, the latter dying with a quantity of the extract within six inches of his nose.

Subnitrate of Bismuth for Hyperidrosis.

The remedies which have been suggested for this very disagreeable affection are very numerous, and consequently very unsatisfactory, the rule in this case as in all other diseases, being that the curability of the affection is in inverse ratio to the number of "sure cures" recommended for it. The latest remedy is subnitrate of bismuth, the use of which is advocated by M. Vieusse, surgeon-major of the French army. In his experience of fourteen years he declares that he has met with but one case that was not fully amendable to this treatment. It is adapted to all the forms, or rather degrees of severity, in which this comparatively trivial, but nevertheless annoying and disgusting affection, is encountered. Five to seven drachms should be rubbed daily into the feet, not negelecting the surface between the toes. From five to fifteen days of this treatment is said usually to suffice for a permanent cure. There is no reason to fear that the checking of the perspiration will be followed by the establishment of some compensatory trouble, as some writers would have us to fear. M. Vieusse attributes the beneficial effects of bismuth to its purely local action. Under the action of the sulph-hydric acid on the perspiration, the bismuth loses part of its base, and becoming acid it exercises an astringent and slightly caustic action upon the skin. In consequence the epidermis becomes stronger and firmer, and separates with less facility from the subjacent derma. The better tone thus imparted to the skin tends to lessen the amount of blood circulating therein, and this in turn diminishes the secretion of the sudoriparous glands and the sebaceous follicles. At the same time the derma, protected by a thicker and more resistent covering, does not become denuded, and therefore the pain due to such denudation ceases. The reporter cites one case in which the suppression of the sweating was but temporary, but even in this case the offensive odor and the pain were permanently stopped.

The Improvement of Pharmacy as a Branch of Medicine.

In an editorial article the North Carolina Medical Journal recently referred to the improvement of pharmacy as a branch of medicine, and to the necessity of its cultivation, if the physician would attain his highest degree of efficacy. There is, says the writer, no more busy field than that of pharmacy. The conscientious man has never a moment for idling He has no time to devote to the political gossip of the day and thus convert his shop into headquarters for idlers, so long as he is obliged to confess that he is not familiar with his text books. Be he ever so learned there remains some new field which he may cultivate to advantage. The pharmacal profession of this country includes some of the most accomplished chemists and botanists. The preponderance of them on the last committee of revision of the pharmacopœia shows how highly their demands were esteemed by the convention. Upon them devolved, by far, the greatest part of the work of the pharmacopœia, and both the professions of pharmacy and medicine looked to them for the future improvement of that volume. It is very gratifying to the medical profession to see the great strides in learning which our pharmacists are making. If in old William Bulleyn's time the injunction to the "apoticaries" was necessary "that he do remember his office is only to be the physician's cook," it is no longer applicable now, for the learned and skilled pharmacist is the peer of the learned physician.

The pharmacist is the great helper of the physician, if it be that he is a well-prepared man, and it is of great importance to the medical profession that they should encourage every effort which tends to this professional advancement.

Bromide of Sodium in Epilepsy.

Dr. J. Leonard Corning, of New York, in reply to the recent assertion of Professor Dujardin-Beaumetz, that he has made many trials of bromide of sodium in epilepsy, and notwithstanding the considerable doses exhibited—ten to twelve grammes a day—has never succeeded in arresting attacks, either of petit-mal or grand mal, by this salt, says that he has employed the sodium in epilepsy, both of adults and children, satisfactorily arresting the attack and causing a substantial improvement in the health of the patient. He ordered the bromide of sodium in forty-grain doses three times a day for a boy of fifteen years, who, before treatment often had as many as four attacks in a single day, and put him upon a diet of eggs and milk. At the end of three months there was a gain of nearly twenty-five pounds in weight, and the number of fits had been reduced from an average of about three a day to two or three a month. The change in the mental and bodily condition of the lad was so great that his mother, who had been separated from him during treatment, hardly recognized him. Other instances which the writer has had occasion to witness, convince him of the wonderful effects of the bromide of sodium in

epilepsy. Some attention should, of course, be paid to dietetics and general hygienic rules; but the same may be said with respect to almost any other remedy which has been employed in epilepsy. The lack of success attending Professor Dujardin-Beaumetz's attempts with the bromide of sodium, is attributed to those "unaccountable exceptions, which, if not refuted promptly, are calculated to mislead those whose experience with the remedy in question, is as yet limited."

Phosphorus in the Treatment of Osteomalacia.

In the February number of the last volume of the Centralblatt for Klinische Medicine, Dr. W. Busch gives a report of two cases of osteomalacia, or rickets in the adult, which he treated by means of phosphorus. These cases were very extreme ones, and the fact that phosphorus wrought an improvement in them after the failure of all the other remedies usually recommended for this condition, is very strongly corroborative of the claims which Dr. Busch makes for it. The softening of the bones was observable principally in the pelvis, the symphysis pubes projecting forward like a beak, until the horizontal rami were sharply bent. Walking was almost impossible, and the patient was with the greatest difficulty moved from her bed to a chair. The formula in which phosphorus was given is known as Wegner's phosphorus-pill formula. It is as follows:

℞ Phosphori, 0.025.
Syrupi simplicis, 7.5.

M. Bene, et adde:

Pulv. glycyrrhizæ rad., 10.0.
Pulv. gummi. arab., 5.0.
Gummi tragacanth, 2.5.
Fiat pilulas, No. 250.

Each of these pills contains 1-600 of a grain phosphorus, and the dose was one twice a day, gradually increased.

Singular as it may appear, Busch does not consider phosphorus to be of any value in rickets, as occurring in children, or in caries.

The Treatment of Eczema of the Genitals, Pruritis and Leucorrhœa.

The Obstetric Gazette states that in cases of eczema in which glyceroles and unguents have failed, the following formula has been successful:

℞ Chlorate of potassium, 30 grains.
Wine of opium, 50 grains.
Pure water, 1 quart.

This is applied by linen compresses covered with silk. In the event of much existing inflammation this application should be preceded by warm sitz baths or cataplasms sprinkled with powdered carbonate of lime. In obstinate pruritis, associated with leucorrhœa, a teaspoonful of a mixture of equal parts of tincture of iodine and iodide of potassium, in a quart of warm tar water (tar holding the iodine in solution) used daily night and morning, removes the pruritis and ameliorates the leucorrhœa. In fetid leucorrhœa two or three tablespoonfuls (in a quart of warm water morning and evening, as an injection) of the following formula will be found useful:

℞ Chlorate of potassium, 13 parts.
Wine of opium, 10 parts.
Tar water, 300 parts.
White vinegar (or wine), 300 parts.
Tincture eucalyptus, 45 parts.
Salicylic acid, 1 part.
Salicylate of sodium, 20 parts.

One to five teaspoonfuls in a quart of warm water as an injection two or three times a day.

Book Reviews and Notices.

Insanity Considered in its Medico-Legal Relations. "Ornari Res Ipsa Negat, Contenta Doceri." By T. R. Buckham, A. M., M. D. 1883.
Philadelphia: J. B. Lippincott & Co. London: 16 Southampton Street, Strand.
Detroit: J. MacFarlane.

This is an octavo volume of 265 pages, printed in clear type, well leaded and on first class paper. It is dedicated to the Honorable Thos. M. Cooley, L L. D., one of the Associated Judges of the Supreme Court of Michigan. The author, one of the prominent physicians in the state of Michigan, being often called upon to give expert testimony on matters pertaining to his profession, was led to notice particularly the uncertainty of verdicts in insanity trials—that is to say, in the trial of persons for whom the plea of insanity is set up as an excuse or palliation for crime committed. This uncertainty the author claims to be a blot in judicial proceedings to such an extent "that they command neither the respect nor confidence of the people, and hence are shorn of the moral force and influence that properly appertain to judgements of courts."

That such uncertainty of verdict exists postulates some grave error or defect in the judicial proceedings that the public are interested in discovering who are responsible for the uncertainty of justice, and in the discovery of such remedies as, properly applied, will insure a reasonable certainty of true verdicts in all insanity cases, and which if obtained would remove the foul blot that mars the otherwise fair record of our judicial proceedings, and render life and liberty more secure. Such is the task undertaken by the author.

In the discussion of the subject the author opens with an introductory chapter. Chapter II. Physical Media Theory is introduced and discussed with the "Psychical" or "Metaphysical" Theory. In this the author claims that crime cannot be committed unless there is a mind to will and a body to execute, and that medical jurisprudence has nothing to do with either mind or body if separated. The body may be diseased but there is no proof of disease of the mind.

Chapter III. discusses the somatic theory; like the physical media theory, it treats insanity as a physical disease, hence in that most important respect in their "medico-legal-relations" there is no *practical* difference between them.

In following the two theories to their ultimate conclusions there are differences and some of the more important of them, chiefly the "freedom of the will" and "moral insanity," are considered as questions directly and most importantly affecting the jurisprudence of insanity.

Chapter IV. discusses the intermediate theory. This theory, introduced by Messrs. Wharton & Stillé, Med. Juris. 3rded. vol. 1, p. 318, teaches that insanity is, 1st. to a large measure the result of nervous and physical causes, often voluntarily induced, partly by the negligence and partly by the misconduct of the patient himself; and, 2nd that in such cases, by being made the subject of penal discipline, it may often be prevented or restrained.

Chapter V. is devoted to experts. "The expert (Wharton & Stillé, Med. Juris.) should possess at

least three qualifications, without which he should not enter the witness-box, viz: (1) "Law sufficient to determine what is the responsibility which is to be the object of the contested capacity; (2) Psychology, so as to be able to speak analytically as to the properties of the human mind; (3) Medicine, so far as concerns the treatment of the insane, so as to speak inductively on the same subject. If either of these factors is wanting, a witness cannot be technically an expert." Yet but few can possess the above qualifications and come within the legal pale of experts. The author proceeds to show wherein justice is deprived of the knowledge it ought to have, and the injustice done to both the person and public from ignorant testimony.

The last chapter, which is an appendix, is devoted more particularly to the recitation of opinions of leading members of the judiciary in insanity cases, and is a valuable addition to the work. A very full index closes the volume.

The book is remarkably well written. It is concise. Words are only used to convey to the reader what the writer desires him to know; at the same time it is not so stiff as to make the reading unpleasant. Our opinion of it is that it possesses superior merit, and is just the kind of book the medical practitioner should possess. The newspaper press speak of it eulogistically, and the medical journals write of it as a valuable addition to medico-legal knowledge.

"Westward the star of empire wends its way," and it is with pleasure we notice the efforts of western men in medical literature and the uniform acknowledgment of their merits as writers, by those qualified to give an opinion. The book before us is of a high character, and must take its position as a standard work.

An Ethical Symposium, being a series of papers concerning Medical Ethics and Etiquette from the liberal standpoint By Alfred C. Post, Wm. S. Ely, S. Oakley Vanderpost. Lewis S. Pilcher, Thos. Hun, Wm. C. Wey, John Ordronaux, D. B. St. John Roosa, Cornelius R. Agnew, Abraham Jacobs, and H. R. Hopkins, With an appendix. "What is my liberty judged by another's Conscience."

G. P. Putnam's Sons. New York, 27 and 29, West 23d St. London, 25 Henrietta St., Covn Garden, 1883. $1 25

Detroit: John Willyoung.

The object of this book is to place before the reader the motive which induced the opposition to the code of ethics as adopted by the American Medical Association, and has been the guide of the medical profession of the United States since the year 1847, and is an endeavor to sustain the motive which introduced what is called the New Code of the Medical Society of the State of New York, some two years ago. We have known the time when the gentlemen writing the articles collected in this little volume before us could see no objection to the old code, so called. And we have heard our venerable friend Dr. Post speak of it in the warmest terms of approval and that only a year before the change had been made in Albany by the State Medical Society of New York. "Hincillæ Lacrimæ" and the necessity of explanation. It is all very well to call attention to the golden rule and that all medical men are gentlemen, or supposed to be such. But gentlemen in other lines of calling have their codes. And if everybody was a gentleman and governed by the golden rule there would be no need of law or courts to dispense it. Were the makers of the new code honest they would give the reasons for their action, and their sudden conversion to consultation with those they have for years disdained to know or even to recognize as gentlemen or practitioners of medicine. The laws of New York may make any sect or system legal, but they cannot compel, nor do they, the meeting of such sects or systems in private consultations. We are sorry to see the writers of the articles laboring so hard to pull down what they have for years helped to build up. Especially when the reasons they give are so diametrically opposite to their teachings. There must be something radically wrong.

Is it the code of the medical profession of the United States *per se*, or is it not the almighty dollar that is the greater attraction, for the change made by the new codists appears to have practical reference to it? One writer refers to the fact that the A. M. A is not a legalized body, while the Med. Soc. of the State of New York is. So much stronger then is the argument for the old code, when gentleman can socially combine to maintain it. To say the least it is certainly morally strong.

We do not see that the book adds any to the strength of the new codists. Very sure are we that it does not detract from the merits of the code of the A. M. A.

A Treatise on the Diseases of the Nervous System. By James Ross, M. D., LL. D., Fellow of the Royal College of Physicians, London; Senior Assistant Physician to the Manchester Royal Infirmary; Consulting Physician to the Manchester Southern Hospital. Illustrated with lithographs, photographs, and three hundred and thirty wood cuts. Second Edition. Revised and enlarged. In two volumes. 1883.

New York: William Wood & Co.
Detroit: John MacFarlane.

This is a capital work on the subject upon which it treats and is issued in two volumes. The first contains 1,023 pages, the second 1,047 pages. Book first treats of the general pathology of the nervous system; book second, special pathology of the nervous system. Part 1, Diseases of the Peripheral Nerves; Part 2, Diseases of the Sympathetic System; Part 3, Diseases of the Spinal Cord and Medulla Oblongata; Part 4, Diseases of the Encephalon; Part 5, Diseases of the Encephalo-Spinal System.

These parts are subdivided into chapters, which are again divided into sections.

The author takes up these different subjects in a scientific manner and discusses them in the light of advanced knowledge.

The book is extensive and furnishes its readers with all that is known on the subject. We have not had time to read it all, but so far as we have been able to examine it we would not deprive ourselves of the information it contains for any consideration.

The book is printed with clear type on handsome white paper, which makes it pleasant to the eye. It has a full index, so that any subject can be readily found. It is fully illustrated, so that the reader can see for himself the varieties of nervous diseases as he may find them in practice. Their pathology is given, the probable results are explained, and such treatment is given as the collected experience of the most distinguished physicians have found of any practical value.

We have no hesitancy in recommending it to our readers.

A Manual of Practical Hygiene. By Edmund A. Parkes, M. D., F. R. S., late Professor of Military Hygiene in the Army Medical School; Member of the General Council of Medical Education; Fellow of the Senate of the University of London; Emeritus Professor of Clinical Medicine in University Medical College, London. Edited by F. S. B. Francois De Chaumont, M. D., F. R. S., Fellow of the Royal College of Surgeons of Edinburgh; Fellow and Chairman of Council of the Sanitary Institute of Great Britain; Professor of Military Hygiene in the Army Medical School. Sixth Edition. With an appendix giving the American practice in matters relating to hygiene. Prepared by and under the supervision of Frederick N. Owen, Civil and Sanitary Engineer. Vol. I. 1883.

New York: William Wood & Co.
Detroit: John MacFarlane.

This work is the September number of Wood's Library of Standard Medical Authors, and appears for the first time in an American dress. The book was originally designed as a manual for officers of the army, but it contained so much of practical information on civic hygiene that it has been adopted to such an extent as to have become a standard work on the subject. Other works of the kind have their individual merits, but Parkes' stand preëminent. De Chaumont, the successor of Dr. Parkes, has kept the work up to the times, and the American editor in his appendix has added much of American knowledge to it. We do not know the price of the English edition, but to all those interested in the subject of hygiene the purchase of the series for 1883 of Wood's Library, which includes this work, would be a good investment, for in no other way can it be obtained. We can only say it is a most valuable book on the subject of hygiene.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Batholow, M. A., M. D., L. L. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, etc. Fifth edition revised and enlarged.

New York: D. Appleton & Co., 1, 3, and 5, Bond street.
Detroit: Gorton, Berry & Co.

This work of Professor Bartholow is now so well known as not to require any encomiums at our hands. Nevertheless the advent of the Pharmacopœia of the U. S., of 1880, made such changes and such additions to and omissions from the materia medica, as to almost compel all writers, at least in this country, to take notice and act accordingly. Our author with his usual perspicuity at once saw the necessity of a new edition of his work and has now so arranged it as to meet the demands of the new Pharmacopœia of the U. S. It is now officinal and up to the times. Besides much which has been re-written, the latest reliable information has been added. New material has taken the place of obsolete ideas and the whole is brought abreast of the times. It is a more valuable book than its predecessor.

The publishers have issued it in first class style, as they always do their medical publications.

A Hand-Book of Therapeutics. By Sydney Ringer, M. D., Professor of the Principles and Practice of Medicine in University College, Physician to University College Hospital. Tenth edition.

New York: Wm. Wood & Co.
Detroit: John MacFarlane.

Although many members of the medical profession may disagree with the views of the author on the action of medicines and impute to him a sort of conversion to the dynamic doctrine of *similia similibus*, nevertheless he is a strong writer and discusses his subject as one who has given it the closest consideration. Ringer's Therapeutics is known as a standard work not only in this country but in his own, so much so that the editions of the work fall so closely after one another, as almost to preclude the author from making this last edition an advance on its predecessors.

His manner or method differs from that of many authors on therapeutics in his application of drugs for the cure of disease. He begins with the skin, next the mouth and so on until he ends with the excreting organs. An elaborate index closes the work. There is not the least doubt that it is a safe book for the student, and it is to him that the author addresses himself. It is handsomely published and we have no hesitancy in commending it to both the student and practitioner.

Diseases of the Nose and Throat. Student's Manual. A digest, Descriptive of the Commonly seen Diseases of the Upper Air-tract, with the methods of their treatment. By J. M. W. Kitchen M. D., Assistant Surgeon to the Metropolitan Throat Hospital; late instructor in Diseases of the Nose and Throat at the New Post-Graduate Medical School etc.

New York: G. P. Putman's Sons, 27 and 29 West 23d st. 1882. Price $1.00.
Detroit: John Willyoung.

This is evidently a well written and useful little book and conveys much practical information in a little space. It is well illustrated (although some of the illustrations are rather antique, as for instance on page 27.) Also has a complete index. For the purposes for which it was written we cheerfully commend it.

Treasury Department—Marine Hospital Service. Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the year 1883. Washington, D. C.

This report embraces over 400 pages and gives the work of the service for the past year. Evidently the service is on a sound and practical footing, much of which is due to the enterprise and energy of its chief. A number of interesting medical and surgical cases are reported, and some cases well illustrated. A report of the Florida epidemic of yellow fever is given from the pen of Surgeon R. C. White and others.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the diseases peculiar to Women and Children. By various writers. Edited by Richard Quain, M. D., F. R. S., Fellow and late Censor of the Royal College of Physicians, etc.

New York, D. Appleton & Co., 1, 3, and 5 Bond Street. 1883.

We learn that this valuable work has reached its 5th edition so large has been the demand for it by the medical profession. From our personal standpoint it is one of the most valuable books in our library. The first edition had in it a few errors which have been since corrected. An appendix has been added which virtually completes it to date.

We have no hesitation in commending it to our readers.

Manual of General Medicinal Technology, including Prescription Writing. By Edward Curtis, A. M., M. D., Professor of Materia Medica and Therapeutics, College of Physicians and Surgeons, Medical Department of Columbia College in the City of New York. 1883.

New York: William Wood & Co.
Detroit: John Willyoung.

This is a very convenient and useful book of the kind, both for the student and country medical practitioner, for whose use we have no hesitancy in commending it. Its title describes its scope and object.

Memoranda on Poisons. By Thomas Hawkes Tanner, M. D., F. L. S. Fifth American from the Last Enlarged and Revised London Edition.

Philadelphia: P. Blakiston, Son & Co.
Detroit: John MacFarlane.

This also is a very convenient little manual. Of its authority, the name of Tanner is a sufficient voucher, and the reputation of the house of P. Blakiston, Son & Co., is satisfactory guarantee of its correctness. To those who cannot obtain nor have time to inform themselves from larger works, this little volume will answer a very good purpose.

The Medical Record Visiting List for 1884.
New York: William Wood & Co.

In the preparation of this new visiting list nothing has been omitted which is necessary for its usefulness. It is a *fac simile* of former lists, and one of the best of the kind.

The Pansy. Published by D. Lothrop & Co., and edited by Mrs. G. R. Alden. Weekly. 75 cents per annum.

This is a capital little journal for young people and cheap at double the price. Address the publisher, No. 32 Franklin street, Boston, Mass. We had almost forgotten that we received a portrait of the talented editress. Thanks and exchange.

The Physician's Pocket Day-Book, designed by C. Henri Leonard, M. A., M. D., Prof. of Clinical Physiology in the Michigan College of Medicine, etc. Good for 13 months, Price $1 00.

Address Illustrated Medical Journal Company, Detroit, Mich.

A very neat and well-arranged visiting list and cannot fail to meet the wants of the general practitioner.

Our thanks are due the Secretary of State for the State of Michigan for a copy each of the Transactions of the Michigan Board of Agriculture 1881–2, and Special Acts, session of 1883. Also for circular Michigan Crop Reports No. 25. November 1, 1883.

New Remedies.

On the Use of Peptones in Disease.—When the immortal Stokes requested that his epitaph should symbolize the lesson of his life in the memorable words, "He fed fevers," he pointed out clearly and unmistakably the direction that the therapeusis of the future should take.

Gradually our faith in specifics has been rudely shaken; slowly pathology has demonstrated that disease is, in many instances, self-limited, and must run a definite course. But while we may have lost that confiding faith in some of our remedies, this very fact has directed more decided attention to those conditions, in health and in disease, which tend toward the conservation of the vital forces.

The physiology of digestion has naturally received marked and distinguished attention, and although the process of digestion with all its inherent difficulties still, and probably always will present unexplained phenomena, the progress of the past score of years has added mightily to our former crude notions. From the simple idea that albuminous substances were all alike, their number has multiplied, each presenting attributes sufficiently marked to make them separately recognizable, and similarly, in contrast to the former opinion, that this one albumen when changed into albuminose, as it was formerly called, constituted the great assimilable albuminoid body, we now know many which, under the generic title of peptones, constitute quite a group of absorbable substances.

It is well established that the gastric, the pancreatic, and intestinal juices, each in succession from above downward, act upon the food (the function of the bile we will not here consider.) Each in turn has an action which results in the conversion of albuminous compounds into different peptones—the latter juices giving rise to the simultaneous production of certain products of decomposition (skatol, indol, tyrosin, leucin, etc.). At one time it was thought that the peptones were themselves products of decomposition, but this view has been proven erroneous, and still further, it has been shown by Poehl, Henniger, and others, that they are easily reconvertible into albumen.

The convincing and excellent monograph of Dr. Poehl, of St. Petersburg, (quoted in an editorial of The Medical Record of July 21, 1883, p. 72) helped to establish the fact that the peptonization of albumen is a hydration simply, and not a product of decomposition. Further, that peptone can be reconverted readily into albumen, and that chemical analysis reveals no characteristic difference between albumen and peptone, and that the optical properties of the two bodies are also entirely alike. This latter Poehl correctly thinks could not be true if the two bodies possessed any real chemical difference.

Acting upon the proposition that peptone is a modification, not a decomposition product of albumen, Plosz and Gyergyoi, some ten years ago, and subsequently Maly, Adamkiewiez, and others, undertook a series of experiments upon animals, and later upon man, by substituting peptone for albumen in their food. Their anticipated results were fully realized by seeing the subjects of these experiments not only remain alive but very markedly gain in weight. It was these investigations which furnished the basis for the use of peptonized foods in practice. In Germany they soon established a place for themselves, later in England, and later still in the United States. But in this, as in all matters of progressive scientific thought, the great body of the profession fail to realize their importance. There has ever been an antagonism, though unspoken, between the demonstrable facts of the physiologist and pathologist and the application of remedies based upon these by the practising physician. Accustomed to the use of beef-teas and meat extracts, he clings to them with unwarrantable tenacity.

No one better understood the shortcomings of beef extracts as an article of nutrition than did Liebig himself. In The Lancet of November 11, 1865, he himself admits how much more preferable would be a preparation of meat containing its albuminous portion, instead of beef extracts, if only it could be brought within the means of our patients. The force of these remarks is still better appreciated when we consider, first, that the albuminous constituents of meat coagulate at a temperature far below the boiling-point of water, and that soups and broths therefore must necessarily contain but little albumen. They contain only the extractive matters—namely the flavoring constituents, some of the organic and some of the inorganic salts, and a small percentage of gelatine. As nutritive substances these must manifestly be inadequate. Cold infusions of meat, especially with an addition of diluted muriatic acid, give better results as to the percentage of albumen, but even this does not contain, according to Voit,* more than 1.15 per cent. of albumen, so that six ounces do not contain more than half a drachm of albumen.

That such preparations have a value as stimulants, as tonics and appetizers in those suffering from debilitated stomachs, cannot be questioned. But the problem that we must still seek to solve is, cannot we maintain the general nutrition at a higher standard, and prevent the marked loss of tissue in prolonged febrile movements and in other conditions in which digestion is prevented? If the tissues require albu-

*Herrmann: See Handbuch der Physiologie, vol. VI., part i., p. 448

men in health, surely the same requisite exists in diseased states. But if the digestion is so at fault, as is the case, that the administration of ordinary albuminous food is out of the question, then is it not possible to peptonize the albumen so as to make it sufficiently assimilable in these conditions? To peptonize by the use of pancreatic emulsions appears to us to permit the possibility and probability of inaugurating, coincidently with peptonization, some of the decomposition already spoken of which takes place in the intestine as one of the actions of pancreatic juice. Peptones for this reason, seem eminently more desirable for this purpose. *Still further, is it not reversing the order of digestion to begin in the stomach with pancreatic digestion?*

Seeking to place my theoretical deductions upon the basis of practical application, I began the use of one of the preparations of peptonized beef, using for this purpose Rudisch's preparation of the "sarco"-peptones.

The careful analysis of Dr. Endemann, of this city, informed me that it contained over thirty-six per cent. of peptones. Further, it was not objectionable in its flavor. My experience has enabled me to collate the following facts, and I am much pleased to state that the results have in many instances exceeded my most sanguine expectations. First, as to the age at which sarco-peptones are admissible. I have used them for four weeks in an infant eighteen months old. Children bear them equally well with adults. Secondly, as to the diseases in which they have been used. Among many cases in which they have been faithfully tried, I refer to the following, not as specially selected, but simply as typical cases: In three cases of typhoid fever; in one the patient was fed exclusively on sarco-peptones for two weeks, and in two cases for six weeks; in two cases of chronic pneumonia, in both cases for four weeks; in one case of acute pneumonia, for eight days exclusively, milk being vomited; in one case of fracture in an aged person, for a week exclusively; in one case of icterus catarrhalis; in two cases of rheumatism, one complicated with Bright's disease, in one used exclusively for four weeks; in four cases of vomiting—one of pregnancy, one of anæmia after parturition, one of gastric catarrh after diphtheria, and one of cancer of the stomach, it was used with excellent results; in one case of pelvic peritonitis it was well borne; in one case of post-partum hemorrhage; also in a case of diabetes and gangrene.

The above cases sufficiently well illustrate, first, that the sarco-peptones are borne by the stomach when milk is not retained; secondly, that their nutritive value is beyond that of milk, judging from the better condition of my patients, and of beef broths; thirdly, from its readily assimilable form, even infants can be nourished by it, when milk is rejected. I have caused diligent inquiry to be made among my friends and acquaintances in the profession as to their success in the use of the sarco-peptones. The replies were uniform with my experience. I feel certain, however, that I cannot do more wisely than to quote from a letter from one whose dictum always receives the attention and marked consideration which, coming as it does from such eminent authority, it certainly deserves. Dr. A. Jacobi says: "I commenced the use of peptonized beef a very short time after Leube taught the preparation and indications of his 'meat solution.' For many years I employed it, both by mouth and by rectum, by mouth either undiluted, by the teaspoonful, or dessertspoonful, or diluted in beef broth, or with tomato sauce, etc.; in the rectum, diluted with warm water in different proportions. There are some facts which need not be proven, but which merely require application. Such a fact appears to me the great usefulness of a substance which has already been peptonized, *i.e.*, digested, over one whose claims on the functions of the stomach begin as soon as they enter the stomach. Thus, without going into specifications, I remember a few cases of cancer of the pylorus, in which the violent vomiting stopped entirely for some time, and immediately, when nothing but Leube's solution was introduced. These cases occurred even at a time when there was but a single place in New York City where the 'meat solution' was for sale, and when the preparation, in regard to uniformity and reliability, left much to be desired sometimes. This latter circumstance has often deterred me from using it when I might have derived great benefit from its use, but the sad fact will always remain, that the main necessities of the human species in regard to food and medicines are not also the main objects of the individual manufacturer and tradesman.

"I have also used it in cases of thorough hydræmia, slow convalescence, and all those conditions in which the stomach does not prepare its own solvent and digesting fluids. Wherever there is a mucous membrane and lymphatics, a genuine peptone ought to be and is absorbed. Atrophy of the glands of the stomach, with its absolute apepsia, is one of the best indications for its use. A certain degree of gastric catarrh does not form a contra-indication, least of all, intestinal catarrh.

"Here I desire to direct your attention to the difference in the effects of peptones and 'beef-tea.' In cases of intestinal catarrh with diarrhœa, the latter —so frequently resorted to in general practice—is apt to be injurious by the concentration of salts in it, perhaps also for some other reason; peptone, however, is not only easily tolerated, but is beneficial for the reason that it is absorbed before it reaches the diseased surface. On the condition of the latter when in contact with peptone or anything else everything depends. An inflamed mucous membrane does not absorb, and therefore to administer peptones in a serious form of gastritis, or to inject it into an inflamed rectum, is worse than letting them alone.

"I believe it took years after Professor Leube's publications before the manufacturing interest became aware that there was 'money' in the preparation of peptones. The meat solution has a very strong aromatic taste and flavor. It is true that some patients take it well and long, but some object to both these properties from the beginning, or get tired of the preparation very soon. These objections have been the reason for many attempts at producing other preparations of similar nature.

"I have no doubt there are a great many good and reliable ones among them, and the fickleness of the individual taste must often direct the selection of the required article by the physician. I, for my part, have for a long time preferred Rudisch's preparations, particularly his 'Sarco-Peptones.' I have been told that you have experimented a great deal with the same. My reason for preferring it has been, the absolute uniformity and equality of the specimens, and the fact that patients, as a rule, have been willing to take it for a long period in succession. I give it unmixed in teaspoonful or half-teaspoonful doses every half-hour, hour, or two hours, or dilute it with broth, or spread it on stale bread or toast, or mix it with water for rectal injections. For months I have used no other preparation, being satisfied with having at least one which was reliable. I do not mean to say that there are not just as good palatable ones besides, but I am guided in my selection of that preparation simply by the fact that I have done well with it and cannot expect to do better.

"I know that many of my cases of hydræmia, slow convalescence, chronic disease of the stomach, many cases of gastric dyspepsia, inanition brought about by rachitis and scrofula, and infectious fevers, have been greatly benefited, to say the least, by peptone. Very respectfully yours, A. JACOBI.—From article by Dr. J. W. Frankl, in *Medical Record*, December 1, 1883.

The Use of Jequirity in Eye Disease.—Jequirity has been used for some time past at the Wills' Eye Hospital in the treatment of obstinate cases of trachoma and corneal pannus, which all other known remedies have failed to improve. The number of cases in which it was used is not great, but is sufficient to demonstrate beyond a doubt its efficacy in those that have continually grown worse under other treatment, or were at a provoking stand-still.

A report of a few cases may prove interesting.

Case 1.—S. G. (service of Dr. Keyser), both eyes had been sore for eight years, but the left had finally been almost entirely cured by other means. The right eye, however, defied all treatment; the lids were thick, hypertrophied, slightly rough, and beefy in appearance. The cornea was entirely covered by a thick fleshy pannus, and at no point was the iris visible. She had light-perception only, and photophobia was intense. An infusion of jequirity was applied, the strength of which was eighteen grains to the ounce. In a few hours the lids began to swell, became stiff and very painful; lachrymation, not marked at first, soon increased, and became, after two or three applications, purulent. Along with the above conditions appeared a whitish-gray and filmy membrane which covered the mucous surfaces of both lids. This became more consistent and adherent as the inflammation increased. Adhesions formed between the pannus, grown puffy and swollen, and the palpebral conjunctiva which necessitated their being broken up daily by the probe. The cornea had in fact every appearance of sloughing, though it was not in the least injured. Six applications were made to the everted lids, when it was deemed advisable to discontinue its use on account of the intense inflammation. The patient was now in anything but a comfortable condition, on account of the constant pain and lachrymation, and could scarcely bear to have the lids touched for the purpose of cleansing. This state, however, was of short duration, for, left to itself, the inflammation quickly subsided, and the swelling, lachrymation, and pain disappeared. A boric acid collyrium (gr. x to ℥j water) was now used several times a day. A small clear spot appeared in the center of the ulcerating pannus, which increased in size daily, spreading rapidly towards the margins of the cornea. Through the clear space the patient saw distinctly, and each day the vision improved as the pannus disappeared. A month later the pannus was entirely absorbed, the lids were smooth and soft, the cornea was hazy from cicatrices and facets, the iris was visible at all points, and vision was improved from light-perception to counting fingers at three feet. In this condition the patient was discharged.

Case 2.—C. W. (service of Dr. Schell), right eye has been sore off and on for several years; lids in state of dry trachoma and cornea partially covered by pannus. On September 20th, at 8 A. M., first application of a nine grain solution of jequirity was made. At 1 P. M., a distinct film covered both lids, which was easily detached; there were slight pain, lachrymation and swelling. A second and third application were made that day, and the fourth the next morning. The lids were now very chemotic, discharge muco-purulent, and membrane thicker and more adherent. Four applications were made in this case, the patient having, in the meantime, been compelled to take his bed on account of pain and general uneasiness. The inflammation was left to work its own cure: 22d: Lids considerably swollen, discharge continuous, pannus ulcerating, and cornea intact. By the 27th the discharge had ceased, the lids were smooth, and the cornea was daily becoming clearer. The patient was discharged on October 18th, wonderfully improved, though the vision was not as clear as might be expected. This is accounted for by the number of facets on the cornea, caused by the pannus, which, though entirely absorbed, had left its marks firmly imprinted.

Case 3.—J. W. (service of Dr. Goodman), an old and obstinate case of granular lids with pannus, which resisted all remedies, and continually grew worse. The lids of both eyes were rough and flabby, the corneæ were covered by pannus, and photophobia was most distressing. Four applications were made to both eyes, with similar results to those above described. A boric acid collyrium was then used, and the inflammation quickly subsided, leaving the lids perceptibly smoother and corneæ clear. Both corneæ were found to be covered by excavations, which caused a great deal of irregular astigmatism. The left cornea became entirely free from pannus, but the right, not progressing so fast, the jequirity was again applied, with like results and improvements. A third time the infusion was used, and the result encouraging. Photophobia, so distressing before the use of the jequirity, is much relieved, and, though the patient is not yet cured, his present condition is so marked an improvement upon the former that there is reason for great encouragement

Case 4.—C. A. (service of Dr. Hall), chronic case of granular lids and pannus in both eyes. The granulations were prominent and hard. Jequirity was used but twice, on account of the intensity of the inflammation excited. The granulations underwent marked absorption and flattening, and pannus has disappeared.

Case 5.—E. C. (service of Dr. Keyser), heavy, flat granulations with fleshy pannus and hypertrophy of mucous membrane. Jequirity applied, with usual results. Ten days later: pannus absorbed, cornea a little hazy from cicatrices, and lids very much smoother. Patient discharged.

Case 6.—C. G. (service of Dr. Schell), lids thick, stiff and very rough; corneæ hazy from old cicatrices, but no pannus. Jequirity applied three times. Roughness almost disappeared, no discharge, but vision not much improved on account of the cicatrices of old ulcers which were not acted upon by jequirity. Patient discharged.

Case 7.—R. I. (service of Dr. Goodman), lids of both eyes studded with large, prominent granulations, and corneæ streaked by numerous vessels. The granulations were first flattened by the use of the mitigated stick of nitrate of silver (thirty-three per cent.), and jequirity then applied in the usual manner, and with like results. Thirteen days after, the patient was discharged, to all appearances cured, excepting the cloudy condition of the corneæ, which can only be improved by time.

Case 8.—M. G. (service of Dr. Schell), trachomatous lids very rough, with corneal pannus in both eyes. Two applications of an eighteen grain infusion were made here, causing great pain, swelling and lachrymation. After subsidence of inflammation, lids were found smooth, pannus entirely disappeared, but cornea covered by facets, which prevent distinct vision.

Remarks.—The preparation of jequirity used is a cold infusion prepared by Mr. L. E. Sayre, at Eighteenth and Market streets. The strength of the infusions was, in all cases but two, nine grains to the ounce; in the two it was eighteen. The latter was found too severe in its action, and for that reason its use was discontinued. These preparations are very prone to decomposition, and when in that condition give out a most offensive odor; but the power of causing inflammation is as active as when freshly prepared. To prevent this decomposition, which rendered its use very disagreeable both to patient and physician, it was decided to try the effect of boric acid in the preparations. Accordingly, Mr. Sayre added to each ounce of the infusion four grains of the acid. The results surpassed our most sanguine hopes, for not only were all preparations kept pure and sweet, but the action was not in the least diminished.

The infusion is applied to the everted lids by means of a camel's-hair brush, or a swab of absorbent cotton—the latter is preferable on account of cleanliness.

It has been observed that pain is first noticed

about four hours after the application, and simultaneously the lids begin to swell, and the filmy deposit appears on their mucous surfaces. Its action should be watched most carefully, for though no case of sloughing cornea has followed its use here, it might easily be a sequel through carelessness and inattention. Its use should be discontinued when the lids become chemotic, mucous surfaces well covered by the membrane and the discharge muco-purulent. Pain is in the majority of cases quite severe, but soon ceases after the applications are stopped. The discharge is very tenacious and rarely escapes beyond the lids.

Corneal opacities, *i. e.*, cicatrices of old ulcers, are not removed by jequirity. Its use upon acute granulations, etc., is not warranted; for, though it seemingly makes them no worse after its discontinuance, still they are not in the least improved. A marked improvement in vision has not been seen to follow its use unless the pannus was complete. This is accounted for by the condition of the cornea, which closely reminds one of a hammered button, with the light glistening from its numerous surfaces. This causes for the time being an irregular astigmatism, which, of course, prevents accurate vision for such objects as test-letters, and is the reason why the vision has not been recorded in the report of these cases.

It will be readily seen from the above report that only chronic diseases, such as trachoma, granular conditions and pannus seem proper cases for the employment of jequirity. Its use in acute troubles has been thoroughly tested here, and found to be contra-indicated.—Charles W. Kollock, M. D., resident surgeon Wills' Eye Hospital, Philadelphia, in *Medical News*, December 15, 1883.

Viburnum Opulus in the Treatment of Dysmenorrhœa and Abortion.—As the treatment of dysmenorrhœa is confessed to be unsatisfactory, the profession will welcome the advent of any remedy which promises to be useful in this often distressing affection.

Classification is extremely useful, but the limitation of the varieties of dysmenorrhœa is not so exact in nature as in the text-books, several factors often being present at the same case. Even in cases where we are accorded the fullest liberty of examination for a diagnosis, we often fail to give satisfactory and continued relief. Besides these, we meet many cases, as in young virgins and others, where it is undesirable to subject the patient to a physical examination. In these, our diagnosis is presumptive and our treatment must be tentative. After having run the gamut of suitable remedies, my attention was attracted by an abstract in the *New York Medical Record* (vol. xxii, p. 613), of Dr. Purdy's article in the *N. Y. Medical Journal and Obstetrical Review*, on the use of viburnum opulus in dysmenorrhœa. Not being able to procure the remedy in town, Messrs. Parke, Davis & Co., kindly sent me a lot of their fluid extract to experiment with. The results of its use have been so decided, after nearly a year's trial of the remedy, that it has been determined to make them public.

I have selected a few typical cases from an extensive series, to show to what conditions the drug is applicable, and when it is futile to expect relief from other than mechanical means.

Case 1. Mrs. Ellen B., 35, nullipara: has moderate pain for two days before the flow, and after it sets in the pain is violent and spasmodic. She was confined to her bed during every menstrual period—latterly her sufferings are more intense. An examination revealed a marked cervical constriction from anteflexion. A prolonged attempt was made to introduce a probe, but failing in this, a small tupelo tent was passed into the internal os by seizing the cervix with a vulsellum and making traction to straighten the canal as much as possible.

In a few hours violent pains set in accompanied by a premature free menstrual flow. The tent was withdrawn and the viburnum opulus ordered, but its only effect was to somewhat modify the pains and the quantity of the flow; as she was clamorous for relief I was compelled to give her decided doses of sod. bromide and morphia. In three weeks, after a tent treatment, she menstruated again, almost painlessly, without taking any drugs. In this case the drug was a comparative failure from cervical constriction due to anteflexion.

Case 2. Mrs. J., primipara: this is a case of what Duncan calles "one-child sterility," having been pregnant only once, and that in the first year of wedded life, sixteen years ago. Had always, even when single, suffered from disordered menstruation, usually a spasmodic dysmenorrhœa, with menorrhagia—the latter usually profuse enough to cause marked anæmia. She has had several attacks of cellulitis, terminating by resolution. Examination showed a hyperplastic uterus slightly retroverted, but with a free uterine canal. Cannabis Indica had given the best results in her case, but there was yet something lacking to make her comfortable during her periods. This desideratum the viburnum opulus supplied. Her menstruation became absolutely painless, with a moderate normal flow. She has now passed five periods in perfect comfort, by taking daily three 20 drop doses during the first few days of menstruation.

Case 3. Mrs. D. C., 3 para: had spontaneously aborted in August, '82. Became pregnant again in Feb., '83. Her local condition was normal, except a large slit in the left side of the cervix, with a profuse vaginal discharge. During and after a critical illness from gastric ulcer, during March and April she had symptoms of imminent abortion, but by rest and medication the miscarriage was prevented, the alarming pains, however, frequently recurring. In May, the exhibition of this drug was followed by complete subsidence of the pains, and she is happily now near her accouchement.

Case 4. Mrs A., a young married woman, who had a premature still-birth, followed by a miscarriage in the third month; has nearly completed her third gestation, her condition being decidedly influenced by the use of the viburnum opulus. In her case all the usual medication, including the v. prunifolium had previously been tried in vain.

Case 5. Miss Emma, 22: dysmenorrhœa during all her menstrual life: sufferings were so great as to induce her to permit an examination, after the failure of viburnum opulus to give relief. She was cured by dilatation of a flexed canal, with stenosis.

Case 6. Miss Hester, 19, but rather immature: has menstruated since 16; always with pain during the day before the flow sets in and during the first two days. Latterly, her pain became so violent that she had convulsive attacks, with cold extremities and skin. In her case it was desirous to succeed without recourse to a local examination. Her treatment extended nearly one year; nothing but a decided narcotism giving her even a moderate relief. She was placed on the viburnum opulus, 15 drops every 15 minutes during the violent attacks, otherwise the drug was taken regularly four times daily in 25 drop doses, its use beginning two days before the flow set in. The result was brilliant; she has now menstruated painlessly for months, with a normal flow in place of a formerly scant one. She has developed, and is now a hearty woman.

It will be seen by a perusal of these cases, that, aside from threatened abortion, this drug is most useful in spasmodic dysmenorrhœa; abolishing pain and regulating a scanty or excessive flow. My experience agrees with that of Hale and Meyer (l. c.)—it is a direct uterine sedative. To carry this deduction to its conclusion, the drug should be useful in menorrhagia, due to fibroids or other causes. I have had but one experience of this sort—a profuse and exhausting menorrhagia due to subinvolution (the uterine canal being five inches long). The viburnum

opulus was of positive use in limiting the flow, but, of course, other suitable treatment was required. In cases where an examination is permitted, this drug may be expected to give relief, where the pain does not last throughout the flow; where the pain ceases after a few days, although the flow continues. Where the pain and flow are conterminous there is probably a local condition not amenable to drugs, but only to local treatment.

I conclude, therefore, that in viburnum opulus we have a remedy valuable in neuralgic, congestive or spamodic dysmenorrhœa, besides being of extreme use in threatened abortion.—B. F. Leonard, in *The Medical Chronicle*, October 1883.

Jequirity.—An infusion of Indian liquorice, Abrus precatorius, the jequirity of the Brazilians, has the property of inducing an acute inflammation of the conjunctival sac. This power, according to Sattler, would appear to be due to the action of a parasite of bacterial nature (*vide* The Lancet, p. 120, vol. i, 1883). The idea suggested itself to MM. Cornil and Berlioz to investigate the influence of the bacteria on the organism as a whole. Their results in this inquiry have have been communicated to the Académie des Sciences. An infusion of a certain strength was made by steeping 32 bruised berries of jequirity for twenty-four hours in 500 grammes of warm distilled water, which had been previously filtered, boiled, and re-cooled. The liquid thus obtained preserved its activity for three weeks, and was kept in tubes which had been heated, and the mouths of which were stopped with cotton-wool. The precautions were taken to ensure cleanliness and the absence of other forms of bacteria. As the local effects appear to be directly proportional to the strength of the fluid used, the importance of obtaining a liquid of definite powed is readily perceived. In the first series of experiments 1 cc. to 2 cc. of the prepared fluid was injected into the subcutaneous tissues of guinea-pigs and rabbits. All the animals died in the space of from thirty-six to sixty hours. Œdema of the skin, a slight form of peritonitis, with micro-organisms in the inflammatory products, ecchymoses in the gastric mucous membrane, swelling of Peyer's patches, often accompanied by hæmorrhage into them, were the chief phenomena recorded. Enlargement of Peyer's patches, recalling that observed in typhoid fever of man, had been observed in many kinds of infective diseases of rabbits and guinea-pigs. In another observation, after the subcutaneous injection of .5 cc. of the experimental liquid, inflammatory œdema, followed by intense phlegmon and superficial dry gangrene of the skin, was found to have spread over nearly the whole extent of the abdominal wall. In the serous and purulent effusions of this local inflammation, large quantities of bacilli were detected. Depilation over the diseased region was very easily effected; and a swarm of spores were discovered in the internal sheath of the hair-follicles. The animal recovered with an extensive smooth scar.

When 2 cc. of the preserved fluid, deprived of bacteria by filtration according to Gautier's process, were syringed into the hypodermic tissues, no pathological effect followed. By similar mode of practice, 2.5 cc. of a solution of the crystallized principle of jequirity failed to produce any appreciable result. From these facts the inference is drawn that the bacteria in the experimental liquid are the only active agents.

Another series of experiments were conducted, in which .25 to .5 or 1 cc. of the liquid was injected into the peritoneum and pleura of rabbits. Death ensued in all cases in from twenty-four to forty-eight hours. Inability to maintain the erect posture, with co-ordinate convulsions (leaping) and groaning, were observed some hours before the fatal termination. The autopsy revealed intense inflammation of the serous membranes. Bacteria in the forms of rods and spores were found in the fibrinous and purulent exudations. Lymphatic glands and Peyer's patches were generally enlarged. Congestion and bronchopneumonia on the side experimented upon were recorded.

In the greater number of the post-mortem examinations, very interesting lesions of the liver have been discovered. These foci of disease are believed to be due to the bacteria. Isolated yellowish-grey areas were to be seen at the surface of the liver. These islets were about .05 m. in diameter, and disseminated in greater or less numbers on the inferior and superior surfaces of the organ. Scrapings from the surface of secretions always exhibited under the microscope the bacterial rods of jequirity. Sections of these islets, after being hardened in alcohol and colored with methyl violet, showed at the periphery of certain hepatic lobules, as inter-lobular branches of the portal vein, sometimes filled with a clot containing in its meshes, a quantity of the characteristic bacilli. A similar thrombus interrupted the circulation of a part of the hepatic lobule. In the same isolated foci of disease a certain number of intralobular capillaries contained sometimes bacilli in small numbers, with red-and-white globules, and at others agglomerations of bacilli. Not only rods, but also spores, were detected. The capillary net-work of the opaque islets was filled with leucocytes in various stages of degeneration. Nearly all the elements or granules were colored by blue violet; some were stained of a greenish-blue tint. Whilst the capillaries were filled with the debris of blood-corpuscles, the hepatic cells were also greatly charged. They did not stain, and so contrasted with the brilliantly colored healthy hepatic cells in their neighborhood. Their nuclei were hardly visible, and in places presented a bluish tint, or were replaced by vacuoles. Yellowish pigment granules, not necessarily fatty, were to be seen in the atrophied and mortified cells. Bands of altered cells, however, were visible, directly continuous with the normal protoplasts. In certain of the opaque diseased areas bacteria were not found, these latter having been eliminated or destroyed in the midst of the destructive inflammation. Frogs, into the dorsal lymphatic sac or peritoneum of which injections of the jequirity were made, succumbed in from twenty-four to forty-eight hours. Bacteria in considerable numbers were detected in the cellular tissue, blood, and peritoneum.

The value of these new investigations in the domain of experimental pathology is great. It is interesting to remark that the local application to the conjunctiva affected with granulations or trachomata, sets up an acute inflammation, with the result of causing the granulations to disappear as the secondary inflammation subsides. The limitation of the disease to the conjunctiva, when that part of the surface is alone inoculated is an instance of want of the absorption of the main agent in the production of the disease. There seems now to be but little doubt about the part played in infection by direct absorption. A more or less recent abnormal opening into the lymphatic or blood vascular apparatus is necessary for the production of distant lesions of genuine bacterial origin. An argument of much validity is hereby afforded for the doctrine of specificity of disease.—*The Lancet*, Oct. 6, 1883.

Abrus Præcatorius, Jequirity.—Dr. Rudall submitted the following report from Baron von Mueller to the Victoria (Australia), Branch Medical Association:

The leguminous climber, *Abrus Precatorius*, though only now brought into notice as an important medicinal plant (and here first through Dr. Rudall) was descriptively rendered known already by Dr. Leonhard Rauwolf, who traveled from 1573-1575 in Arabia, Syria, and some adjoining countries, and who published a work on these itinerations in 1582 (Beschreibung der Reiss in der Morgenlaender); in the fourth part of this publication the *Abrus* occurs

first under that name, together with a woodcut of the plant. Rauwolf was medical officer (Physicus) of the town of Augsburg, and it reflects credit on Bavaria, that thus fully 300 years ago some legal control was already exercised over the practice of medicine. Of the various plants discovered by Rauwolf, and noticed in his work, about 200 specimens, nicely glued down on paper (the Abrus among them, are still preserved—as one of the earliest of any herbaria—in Leyden. Allusion to this plant is made by Gesner and de l' Lobel even somewhat earlier, but under difierent names. The specific appelation was given by Linné in 1767. The *Abrus precatorius* ranges widely through the tropical regions as well of the eastern as of the western hemisphere, reaching extra-tropical latitudes in China and Natal. As Australian, we know the plant from various places of Queensland, and I saw it also on the litoral regions of North Australia. Captain Dampier, when exploring on our north-western coast, as long ago as 1699, noted the Abrus as occurring also in the archipelagos, which bears his name. The splendid beauty of the seeds, which suggested the generic appelation, is not always of the normal scarlet with black base, as they occur occasionally white, with black spot, or whitish, or quite black. The use of the seeds for rosaries in some of the churches of South America gave rise to the specific name: The only allusion to the medicinal value of the seeds, so far as I am aware, is in Dr. Rosenthal's "Synopsis Plantarum Diaphoricarum," p. 1022 (published in 1862), where it is simply stated, that they are employed in diseases of the eyes (Augenleiden); but he adds, that their internal use produces anguish, oppression, and spasm (Angst, Beklemmung und Krämpfe); possibly this information may have been obtained from Martius's "Specimen Material Medical Brasilienses," issued in 1824. The foliage and root contain a sweetish principle, which is alluded to at p. 94 of my enlarged English edition of Wittstein's "Organic Constituents of Plants;" but neither this nor the active ingredients of the seeds have hitherto undergone accurate chemical examination.—*The Australasian Medical Gazette.*

Sulamita Vitulus a New Antineuralgic.—In a recent trade circular, Mr. Hänsel, of Pirna. mentions that he has received from a mercantile house in Columbia a quantity of dried flowers derived from a plant described under the name "Sulamita vitulus," which grows abundantly on the eastern spurs of the Cordilleras and is used as a remedy in neuralgic affections. The flowers are said to possess, in the fresh state, a delicate aroma of such intensity that a single fresh flower laid among clothes is sufficient to impart to them a permanent perfume. Distillation of the dried flowers did not give such favorable results as were expected, the yield of essential oil not exceeding one-half per cent, which may have been due to loss occurring during the long journey. The oil was heavier than water, and in its odor markedly resembled salicylate of methyl which is the principal constitueut of oil of wintergreen, and it also sinks in water. The flowers sent, however, came from a melastomaceous and not an ericaceous plant.—*Drog. Zeit. and Pharm. Journ.*

In referring to the above the editor of New Remedies says in his issue for August last: We have, thus far, not been able to learn who has described a plant under the name sulamita vitulus. Certainly no such genus name can be found in the botanical works of reference, even down to a very recent date. Prof. Sereno Watson, of Harvard University, who has also been consulted, has likewise failed to find any mention of it. The name may have been assigned to it by some South American botanist, whose diagnosis has so far escaped general notice. Or there may be a mistake about the name. We have written to some friends for information on the subject.

In the subsequent issue, Sept. 1883 of New Remedies appears the following: "Concerning this new antineuralgic, of which we spoke in our last number, we have received a note from one of our correspondents in Europe, largely engaged in the manufacture of essential oils and therefore directly interested in the subject. He states that diligent inquiries have so far only succeeded in ascertaining that the plant meant is Melastoma Ackermanni, the leaves of which are used in South America for the preparation of an essential oil."

Abrus Precatorius and "Sui" Poisoning.—The seeds of the Abrus precatorius have of late been used as a remedy for granular lids and other eye-affections. The plant from which they are obtained belongs to the natural order *Leguminoseæ*, and grows wild in almost all parts of India. It is mentioned by Susruta and other Sanskrit writers, and has long been in use as a medicine among the Hindoos. It is familiarly known as the Indian liquorice-plant; and the root, when dried, is often sold as a substitute for liquorice in the bazaars in Bengal. The seeds are of a bright red color, with a black spot or eye. They are known as "Jequirity seeds," "prayer-beads," or "jumble-beads." They are used for ornamental purposes, and also by goldsmiths and druggists on account of their uniform weight, the *rutlee* being about two grains. Mahomedan writers describe them under the name of Ani-ud-deek, or cock's-eye, and state that they are "hot and dry, tonic and aphrodisiac." They are said to be poisonous when swallowed, but this is probably a mistake, as they are eaten as an article of diet in Egypt. In India they are used illegitimately for killing cattle, especially by the Chamar or Skinner caste. These miscreants powder the seeds, moisten them with water, and roll them out into little pointed cylinders or needles called "suis." The "sui"—or "sutari," as it is sometimes termed from its resemblance to a cobbler's awl—is dried and fixed into a wooden handle. The animal is stabbed with one of these instruments, the point being left in the cellular tissue, and dies in a few hours. The abrus contains no alkaloid or active principle, but a kind of ferment which probably acts in somewhat the same way as does papayotin, giving rise to the formation of enormous numbers of micrococci and bacteria in the blood. The mortality amongst cattle from the prevalence of this practice is very great in many parts of India. Fortunately, "sui" poisoning in man is not common, but there are several cases on record, and there is every reason to suppose that the numbers will increase. So little is known about the subject in this country, that a source of danger might be overlooked, and the cause of death remain unsuspected —William Murrell, M. D., in *The British Medical Journal*, Nov. 24, 1883.

Kairin.—Oxy-chinolin-methyl-hydrate ($=C_{10}H_{13}NO$) is one of a series of artificial alkaloids derived from chinolin (C_9H_7O) by the addition of oxygen, hydrogen, and carbonic acid, and was first made known by the experiments of Fischer and König. Its remarkable antipyretic qualities were discovered by Filehne, and confirmed during the present year by Ewald, Guttman, and Janssen. (See Berlin Klinische Wochenschrift, Nos. 16, 24, 31, and 46.) It occurs in a whitish crystalline powder, of a persistent bitter aromatic taste. It has the advantage over quinine of producing more decided and certain reduction of the temperature, unaccompanied by headache, singing in the ears or other unpleasant effects, though the impure alkaloid at first employed was not so free from unpleasant sequelæ as the purer drug now to be obtained. It has been employed in croupous pneumonia, typhoid, tuberculosis, scarlet fever, with satisfactory results as far as the temperature is concerned. The pulse and respirations have also been reduced in number. Its action is accompanied by sweating, and the urine becomes of a greenish

color, reminding one of its condition in carboluria. Filehne employs the alkaloid in doses of 7 to 15 grains (half a gramme to a gramme) in an adult, given hourly for three or four successive hours; this usually reduces the temperature 2°-4° F., and then smaller doses of 3 to 5 grains every hour or two hours, unless the temperature again rises, or rigors occur announcing a rising temperature. Each dose is followed by draughts of water. As the antipyretic effect is of short duration, it is better to give repeated small doses than larger ones, and less frequently. To avoid the unpleasant taste of the drug, it may be given in gelatine capsules. The alkaloid has now been given in a sufficient number of cases to establish its value as an antipyretic remedy, probably the most powerful we possess, and also that no deleterious results follow its administration in even large doses. On the other hand its action is only temporary, has the disadvantage of being unpleasant to take, and at present somewhat expensive. While it is doubtful if it possesses the power of cutting short or even lessening the duration of any of the specific fevers, it certainly is useful is mitigating the effects of the fever, by reducing temperature when a high temperature exists. This is illustrated by a chart of a case of typhoid in a girl aged 10 years under my care; two grains of kairin being given when the temperature rose to 103°, and when the temperature was taken within an hour, a decided reduction was noted. The chart only represents three days of the disease, 18th to 21st, but in this case the fever lasted over the 30th. The effect of the drug may be increased by cold sponging or packs, but they were not resorted to in this case, during the administration of the drug.—Henry Ashby, M. D., Manchester, in the *British Medical Journal*, Dec. 8, 1883.

Adonis Vernalis as a Heart-Tonic and Diuretic.—This plant has been for a long time in use in Southern Russia as a popular remedy in the treatment of dropsy, but has not hitherto been submitted to scientific investigations made with a view to determine its physiological and therapeutical action. Professor Botkin has recently employed it extensively in his clinic at St. Petersburg, and Dr. Bubnoff presents a report of the results obtained (*Allgemeine Medicinische Central-Zeitung*, July 28, 1883). It was found to be of value in those cases of dropsy only in which there was pre-existing cardiac disease. After the administration of adonis vernalis the heart-beats were much strengthened, the size of the organ was diminished, and its tones were much louder. The systolic murmur of aortic stenosis especially was intensified. The heart's rhythm became more regular, and the pulse slower and fuller. The daily excretion of urine was increased largely, sometimes rising from ten or twelve ounces to eighty or ninety ounces in the twenty-four hours. In cases in which there was no actual lesion of the kidneys the albumen and casts disappeared. The subsidence of œdema went hand-in-hand with the increase in the amount of urine excreted, and at the same time the secondary symptoms depending upon œdema of various organs disappeared. The patients expressed themselves as feeling much better. The remedy was given in an infusion of the strength of ʒ j to ℥ vj, to which two drops of oil of peppermint were added. The dose of this infusion was a tablespoonful every two hours.—*The Medical Record*, October 6, 1883.

Cascara as an Aperient.—I have lately been using the drug in cases of habitual constipation, due to an atonic condition of the stomach and bowels, with sluggish liver, and the results have been extremely satisfactory. I use the cascara cordial of Messrs. Parke, Davis & Co., of which the formula is as follows: Cascara sagrada bark (tinc. rhamnus purshiana), 100 grammes; berberis aquifolium, root tinc., 37 grammes; diluted alcohol (*U. S. P.*, sp. gr. 941), 233 grammes; sugar, 288 grammes; water, sufficient to make one litre. This is flavored with various kinds of carminative aromatics, and is a most agreeable preparation. Its action is mild, in most cases painless, though occasionally attended with griping. Taken twice a day, I have relieved the most obstinate cases where all other drugs had failed, more especially a woman, whose bowels had acted only once a week for years past. The drug has caused relief every day, and this after every other remedy has failed. The drug should be administered twice or thrice a day, in doses from 15 minims to one drachm (the smaller doses I have generally found effectual) until a normal action is obtained, then gradually reduced till taken once or twice a week. I feel sure that if an extended trial be only given to the drug, very good results will be obtained, and a valuable remedy added to our pharmacopœia. —Dr. William I. Lory, in *The British Medical Journal*, Sept. 22, 1883.

Physiological Action of Adonis Vernalis.—From a careful physiological and clinical study of the effects of adonis vernalis, Dr. Bubnoff arrives at these conclusions:

1. The active principle of adonis vernalis excites the inhibitory nerves of the heart at the central end.
2. Its further action is to paralyze the peripheric end of the vagus.
3. It likewise excites the accelerating system of the heart, sometimes directly (through the blood-pressure), sometimes indirectly.
4. Up to the moment at which paralysis of the vagus occurs, the two systems of cardiac innervation interfere.
5. At the termination of the toxic effect, paralysis of the motor nervous apparatus of the heart apparently occurs.
6. After death there is either complete loss of excitability of the cardiac muscle or it is very much weakened.

In man, this agent caused more gastro-intestinal disorder (vomiting and diarrhœa) than digitalis ordinarily does, and in certain individuals the effect upon the central termination of the vagus was more marked than from digitalis; and in one series of cases with disordered compensation of the blood-circulation, after digitalis had failed, the adonis was given with decidedly good results.—*Deutsches Archiv für Klin. Med.*, June, 1883.

Cereus Bonplandii.—Dr. Cullen (Virginia Medical Monthly and Edinburgh Medical Journal) states that this is one of the many species of cactus, and that he has tried it in several cases of functional heart-disease. One of his cases has been at death's door several times, and has recovered under its use. The symptoms were shortness of breath, inability to lie down, great frequency of pulse, flushing of face, lips and fingers almost stagnant with blood. Having tried digitalis and bromide of potassium without success, he gave the fluid extract of cereus bonplandii in fifteen-drop doses. In half an hour he repeated the dose. The action of the heart moderated, and from 125 gradually came down to 90 pulsations in the minute, or even less. In two cases there was suppression of urine, which warm baths and acetate of potash failed to relieve; and in conjunction hair-cap moss was given, half a drachm of the fluid extract at a dose, every two hours. In one case the kidneys commenced acting, and over a gallon of urine passed during the next twenty-four hours. He does not believe the patient would have lived twenty-four hours without the use of the latter remedy. The author believes that this combination is the best where the urine is scanty and albuminous, and drowsiness indicating coma is apparent. The few cases of benefit already have led him to believe that both drugs will be more freely used in similar cases.—*London Medical Record*, Nov. 15, 1883.

Doundake Bark and Doundakine.—Dr. Vulpian (L'Union Medicale, Aug. 4, 1883) states that doundake is a shrub found on the western coast of Africa, whose bark, used by the natives as a febrifuge, is of an orange-red color and bitter taste. It consists of easily separable, superimposed layers. An organic base is obtained by boiling the bark in water acidulated with sulphuric acid and then treating the resulting filtered liquid with lime. The precipitate is placed upon a cloth, drained and compressed. The dried mass is worked up in a wet bath with alcohol. The alcoholic solution, concentrated by distillation and evaporated in vacuo, yields a substance which, after purification by successive evaporations, is a yellow powder of microscopic rhombohedral crystals, of bitter taste, soluble in water and alcohol, and alkaline in reaction. Winkler's liquid precipitates from it phospho-tungstic and phosphomolybdic acid, but Bouchardat's reagent does not produce turbidity. This powder is an alkaloid called doundakine. The bark does not contain salicylic acid, as was supposed by Venturini. It seems to have both hypnotic and antiseptic properties.—*The Druggist*, Oct., 1883.

Jequirity in Algeria.—Sédan ("Recueil d'ophthalmologie, June, 1883), in a short article upon the new remedy for certain forms of conjunctival granulations, takes occasion to differ from the very satisfactory reports hitherto published of the efficacy of jequirity. He has sometimes met with good results, as perfect as those gained by other methods of treatment, and he admits that the proportion of failures from its use has been no greater than that from sulphate of copper, tannin, or lead. He has found great difference in the specimens of beans, and as great differences in the strength of the various macerations. In view of this certainty of inequality of composition, he thinks there is nothing surprising in the difference in results. In sixteen cases treated at Coleah, in Algeria, three proved successful. Seven cases were benefited. In six others, the inflammation produced was either slight or nil—in all insufficient. Severe pain followed after the fifth lotion, one case was badly aggravated, and in one case a chronic keratitis became acute, and would probably end in a perforation.—*N. Y. Med. Jour.*

Helenol.—Helenol is one of the active principles contained in the root of Enula campana or Inula helenium, the more common name of which is elecampane.

The decoction of elecampane has been recommended as an antidartrous remedy by Knakstedt, and as antipsoric by Hufeland and Guibout. M. Paul Blocq has recently made some experiments as to the antifermentative properties of helenol. [The active principles of elecampane are alantol and helenin. Helenol is probably written here for helenin.] His experiments were based upon those of Korab, which showed that this substance possessed valuable antiseptic properties. Though the experiments of M. Blocq are too few upon which to base general conclusions, yet his results have been very satisfactory in simple and recent traumatisms, in wounds of inflammatory origin, in callous and indolent ulcers, in dressing amputations, and in other cases requiring antiseptic dressings. This substance is a colorless liquid, of slightly aromatic odor. It is not irritating when used as a dressing, and its agreeable odor is a decided advantage in its favor.—*Progrès Méd.*, Nov. 17, 1883.

Abrus Precatorius, or Jequirity Bean.—This drug has now been in use long enough to entitle it to a fixed position in our list of ophthalmic medicines. In our own practice the infusion should be freshly prepared, and used before the greenish-brown color disappears or before flocculi form in it.

The best way to prepare this precious medicine is to take eight beans and crush them with forceps or flat-jawed pliers, place them in a mortar and bruise the fragments into a pulp; then add one ounce of warm water and set aside for twenty-four hours, after which rub thoroughly in the mortar and filter, when the infusion is ready for use. It may be instilled every four hours into eyes affected with pains, or brushed every day over the hypertrophied papillæ of the lids. It has been objected by some that jequirity can not safely be used in cases of superficial ulceration of the cornea. Experience has shown this to be groundless. It may be an old infusion would prove inefficient and even deleterious, but the freshly-prepared infusion made of the beans furnished by Parke, Davis & Co., of Detroit, has proved entirely satisfactory.—*Medical Herald*, October, 1883.

Hypericum (St. John's Wort) for the Prevention and Cure of Bed-Sores.—My attention was drawn to this remédy, some years ago, by the friends of a patient afflicted with bed-sores. From the slight experience of two cases I can strongly recommend it; it appears to induce healthy granulation and a more or less rapid cure, in a manner which we should vainly look for from alcoholic or balsamic preparations—and this without any smarting from the application. The compound oil of hypericum, which alone I have used, is sold by Mr. Garrad, chemist of Leamington; I have vainly tried to procure it in London. A recipe in my possession directs that bottles be filled half-full with the flowers of the St. John's Wort, olive-oil is then to be added, and the bottles are to stand in the sunshine for a few days; till the oil becomes of a deep red color; it is then fit for use, and may be either drawn off at once, or left till required. It is merely brushed over the sore two or three times daily, with a feather.—Herbert L. Snow, M. D., London, in the *British Medical Journal*. Dec. 8, 1883

Manaca in Gonorrhœal Rheumatism.—In reply to "Subscriber" I would suggest that he make a trial of the fluid extract of manaca (Franciscea uniflora), in five minim doses every three hours. This drug is manufactured by Parke, Davis & Co., whose London agents are Burgoyne & Co., of 16 Coleman street.

For some time past I have been treating all my cases of acute rheumatism, both gonorrhœal and otherwise, with this medicine, and have secured results quite equal to that given by salicylate of soda in most cases. In some instances, where the latter drug quite failed, manaca has cut short the disease in a few hours.—Geo. Herschell, M. D., Lond., in *London Lancet*, Aug. 18, 1883.

Adonidin.—Adonis vernalis contains a glucoside which has been employed as a substitute for digitalin, which it resembles in its physiological and therapeutical effects. Adonidin is furnished in the form of an amorphous powder, of a bitter taste, soluble in alcohol, much less so in ether or water. It is claimed to be free from a cumulative action, but more experiments are needed to establish its real value in medicine.—*Medical Times*, September 22, 1883.